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ABSTRACT

This volume documents 213 reform efforts in teacher education programs at state colleges and universities around the United States. The programs were described by deans and directors of teacher education in a survey of 321 institutions. Survey respondents were asked to propose up to three brief descriptions of successful teacher education reform initiatives on their campuses. The submissions are organized in 11 chapters based on the program categories of the American Association of State Colleges and Universities (AASCU) "Goals for Preparing Teachers." Chapters describe programs which feature reform efforts in the following areas: (1) standards for teacher education--admission, retention, and exit; (2) diversity in teacher education--faculty, students, and curriculum; (3) the changing curriculum in teacher education; (4) clinical dimensions of teacher education; (5) modeling effective instruction and creative teaching; (6) higher education collaboration with K-12 schools and the community; (7) continuing professional development; (8) alternative routes to licensure; (9) changing role, responsibilities and reward systems for faculty; (10) research for school improvement; and (11) developing models to enhance the teaching profession (the Christa McAuliffe Showcase for Excellence). Each entry describes the program, the intended outcomes, the lessons learned, and gives a contact's name, address, and telephone number. Appendixes contains information on the review committees that worked on the volume. (JB)

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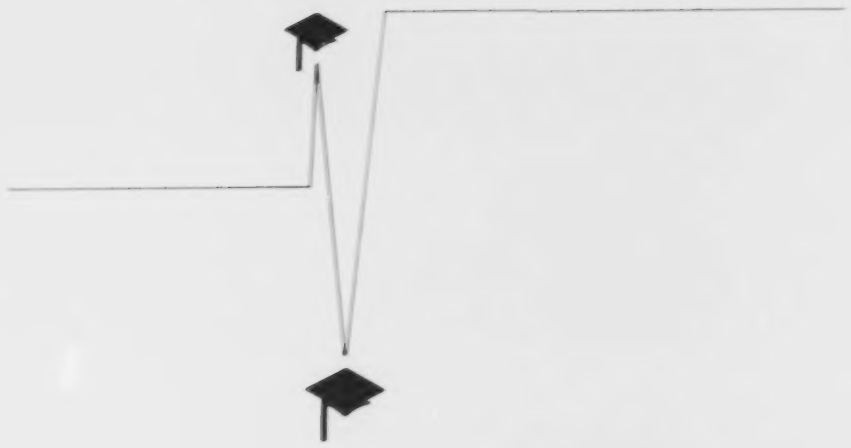

Changing Course

Teacher Education Reform at State Colleges and Universities

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AASCU staff express their appreciation
to the executive committee,
peer review panel, executive director and president
of the Teacher Education Council of State Colleges and Universities (TECSCU)
for their invaluable guidance and expert contributions
in the preparation of this compendium.

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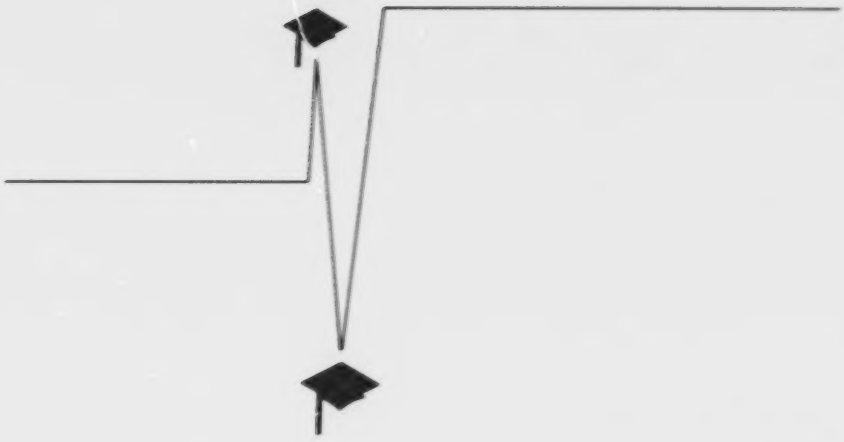

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Teacher Education Reform at State Colleges and Universities

American Association of State Colleges and Universities

Teacher Education Council of State Colleges and Universities

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Foreword

Over the past dozen years, a chorus of agencies, organizations and individuals has exhorted us to improve the K-12 educational experience and, concomitantly, to reform teacher education practice. Today, even as we affirm that there has been change in both, some will claim that there has been great responsiveness from the schools and virtually none from higher education.

The present volume seeks to redress this misperception—at least as it affects state colleges and universities. Here, we document that reform has occurred in teacher education programs at member institutions of the American Association of State Colleges and Universities (AASCU) and show the energy and creativity that our faculties and campuses have contributed in support of that reform.

In 1991, AASCU formed a Presidents' Commission on Teacher Education to lead the association's activities in this area. The membership adopted the Commission's five-point agenda, *Teach America: A Presidents' Agenda for Improving Teacher Education*, in November 1991. It encouraged AASCU presidents and chancellors to get involved in teacher education reform on their campuses. From the work of the Commission also came two national conferences and two publications, *Teacher Education for the Twenty-first Century* and *Teach America: Results (Teacher Education Reform at AASCU Institutions)* in 1992 and 1993.

The present compilation, organized around recommendations from *Teacher Education for the Twenty-first Century*, shows that AASCU institutions have been extensively involved in certain reform activities, notably collaboration with the K-12 sector and the community. Interestingly, however, members volunteered few responses in three categories: standards for teacher education; changing roles, responsiblities and rewards for faculty; and research for school improvement. Finally, not a single university forwarded an example of faculty involved in studies or activities relating to influencing public policy on teacher education.

As the dialogue about K-12 and teacher education reform continues, higher education gets little credit for the substantial change it has effected. Those of us in higher education should be concerned that our voice is not being heard in conversations that may well be decisive for the future of both teacher education and the schools. Emerging from the present study are four areas where we have been strangely mute, where action and commentary would be desirable.

Is there any good reason we cannot contribute to the dialogue about standards for teacher education? Or about school improvement? Is there anyone who knows better than we about faculty roles and rewards? Are we really willing to cede our fate to others and let them decide about public policy for teacher education? If we are to get into the conversation—where we have a great deal to offer—the time to do so is now.

We hope that *Changing Course: Teacher Education Reform at State Colleges and Universities* will be a useful resource to the education community and a point of departure for greater involvement of the higher education sector in the national conversation about teacher education and K-12 reform.

Joyce A. Scott
Vice President for Academic
and International Programs

Introduction

In 1993, the American Association of State Colleges and Universities (AASCU) published *Teach America: Results*, a compendium of teacher education program reforms at state colleges and universities participating in *Teach America I and II*. It documented successful programs that some AASCU institutions had implemented in response to the national call for teacher preparation programs to ready teachers to meet effectively the challenges of tomorrow's classrooms.

Teach America: Results, to a marked degree, repudiated some of the criticism that practitioners and policy makers had leveled at higher education for not involving itself more deeply in the widespread K-12 reform. It offered evidence to the contrary. The book was shared with officials from the U.S. Department of Education and state agencies, policy-makers, other professional associations, and university presidents and chancellors. It has been a positive and productive response to the critics.

To promote higher education's continued involvement in education reform and to document that commitment, AASCU invited the Teacher Education Council of State Colleges and Universities (TECSCU) to be an equal partner in the preparation and publication of a book similar to *Teach America: Results*. *Changing Course: Teacher Education Reform at Colleges and Universities* is the result.

It seemed appropriate that AASCU, whose member college and university presidents and chancellors are deeply interested in and committed to teacher education, and TECSCU, whose members comprise some 160 deans and directors of SCDE's in AASCU institutions, should join forces in this endeavor. Many AASCU institutions have their roots in teacher education, having originated as teachers colleges. Their deans and directors of teacher education are actively engaged with their faculties in efforts to provide appropriate and innovative teacher preparation programs. What better combination could there be to describe and herald the many innovative efforts to reform and improve teacher education programs in their respective colleges and universities in ways that intersect with and collaboratively influence the K-12 sector?

In late October 1994, AASCU and TECSCU invited deans and directors of teacher education in 321 AASCU institutions to propose up to three brief descriptions of successful teacher education reform initiatives on their campuses. The TECSCU Executive Council fashioned 12 program categories from the 27 AASCU *Goals for Preparing Teachers*. While the campus entries often cross category lines, deans were asked to place their programs in a single category accordingly:

1. Standards for teacher education: admission, retention and exit.
2. Diversity in teacher education: faculty, students and curriculum.
3. The changing curriculum in teacher education.
4. The clinical dimensions of teacher education.
5. Modeling effective instruction and creative teaching.
6. Higher education collaboration with K-12 and community.
7. Continuing professional development.

8. Alternative routes to licensure.
9. Changing roles, responsibilities and reward systems for faculty.
10. Research for school improvement.
11. Influencing public policy.
12. Other (specify)

A total of 143 AASCU members submitted 250 reform initiatives which were referred to six editorial review panels composed of two TECSCU deans each. If there was a disagreement on whether a submission should be accepted for publication, a third reader reviewed it and made the decision.

Review panels used the following criteria:

1. relevance of intended outcomes to improvement of teaching, learning, schooling,
2. degree to which the reform is innovative as opposed to "routine,"
3. clear, concise description of what has been learned,
4. adequacy of description for informing the reader, and
5. applicability and replicability of the initiative for other institutions

Of the 250 descriptions submitted, 213 were recommended for inclusion. The submissions are listed alphabetically by institution within the organizing criteria. A special section contains descriptions of reform efforts that have received AASCU's *Christa McAuliffe Showcase for Excellence Award*. Institutional entries include location, contact person and contact information.

The editors have not evaluated the campus programs described nor are the descriptions replete with detail. We present them as a compendium of tried and proven practice at America's premier teacher preparation colleges and universities. Readers may solicit further information from the designated contact persons. They are well-qualified consultants, who can assist in replicating and adapting reform efforts to other campuses.

Changing Course: Teacher Education Reform at State Colleges and Universities is the latest effort of AASCU and TECSCU to document the diverse and innovative efforts of the their member institutions to reform teacher education. These efforts represent best practices that are enhancing the initial preparation of new teachers as well as the continuing professional development of experienced teachers who seek to upgrade their teaching skills. These colleges and universities grant nearly 100,000 credentials to new teachers in a variety of fields annually and offer a plethora of inservice training opportunities for practicing teachers.

The programs described in this book are not meant to be inclusive of all that is taking place in teacher education reform. Rather, they, along with the programs featured in *Teach America: Results*, are emblematic of the ongoing commitment of AASCU and TECSCU colleges and universities to prepare effectively those who are responsible for the delivery of meaningful and productive educational experiences to the learners of this nation.

Barbara G. Burch, TECSCU president, 1994-95
Robert D. Benton, TECSCU Executive Secretary

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Standards for Teacher Education: Admission, Retention and Exit

Austin Peay State University

Clarksville, Tennessee

NBPTS Network: Middle and High School Science Teachers

Austin Peay State University (APSU) is a National Board of Professional Teaching Standards (NBPTS) field test network site. The NBPTS has the potential to greatly influence the assessment of "accomplished teaching" in a wide variety of teaching areas. The university has already participated in field testing standards for middle school generalists and English/language arts areas. Currently, the university is field testing in science. Teachers undergoing the process find that it is a substantive staff development option. They concentrate and analyze their own teaching styles and the learning which results. Sets of generic and specific standards are applied to individual teachers in their own classroom settings and the teachers select examples of their best teaching for review. Once a portfolio, which includes videotaped teaching student papers, diagnostic strategies and results, and other relevant materials, is developed, it is sent to the national board for evaluation. Teachers then participate in two intensive days of assessment center activities, including discussion and review of individual portfolios, analysis of lessons, interviews, and other developmental activities.

Intended Outcomes

The university recruits middle and high school science teachers to field test science teacher protocols for NBPTS. Those teachers in Tennessee who participate and meet the final standards set by the national board will become the first national board certified science teachers in the nation. Some states have already determined certain reward structures in other areas for board certified teachers, including pay raises and school leadership identification.

Lessons Learned

Austin Peay is part of a major reform effort that includes other universities in the development of protocol and assessment materials and processes. Its major function is to recruit teachers and provide assessment center facilities and activities. APSU works with professional groups such as the Tennessee Science Teachers Association, the Center for Excellence in Science/Math Teaching at the University of Tennessee at Martin, and individual school district personnel to recruit science teachers. Broad dissemination of information about the program is essential. Continuing close contact with recruited teachers is essential.

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East Carolina University

Greenville, North Carolina

North Carolina Teaching Fellows Program

Over the past decades the number and quality of students entering teacher education programs have declined. This program reform was created to reverse that trend. One of the most ambitious statewide teacher recruitment programs in the nation, the North Carolina Teach-

ing Fellows Program attracts the brightest and best high school seniors to the School of Education. Provided with a $5,000 per year scholarship, these recipients agree to teach four years in one of the state's public schools following graduation from college. The 1994 entering freshmen had an average high school GPA of 3.58 and almost 1100 on the SAT, indicating the success of this reform to seek and to admit high quality students to the School of Education.

To recruit these exceptional high school seniors, the School of Education provides an academically and culturally enriched preparation program that extends well beyond the regular college curriculum. This is accomplished by offering opportunities and experiences which encourage the development of leaders and decision-makers, by requiring additional academic seminars, and by involving students in activities which instill a sense of mission, service and professionalism. The director of the program visits schools to talk with students, parents and educators and invites high school students to visit campus. A one-day "Celebration of Teaching" workshop attracts an average of 200 high school students and parents annually.

Mentors, faculty advisers, graduate assistants and a full time program director enhance total student development and academic monitoring. Each undergraduate education major is assigned a professor in the certification area to serve as adviser and mentor for the full four-year study. The students are introduced to these professors during an intense orientation period at the beginning of their freshman year. An office in the School of Education is open from nine to five each week-day with a director and graduate students present to provide guidance and support. To monitor academic progress, the director receives a mid-semester progress report from each student's professor as well as end of semester grades.

Intended Outcomes

Three intended outcomes of this teacher education reform are to recruit the top academic high school students to teacher education, to monitor these undergraduates carefully so they are admitted to upper division by the fall semester of their junior year and graduate in four years, and to track and support these new teachers after they exit the School of Education.

Lessons Learned

Although high school seniors have been in a school setting for 13 plus years, they know little about the "profession" of teaching. They think of teachers in terms of teaching English, math and science. Talking with high school students, having them visit campus and attend classes, and especially providing sessions with education professors in all disciplines at the workshop informs high school seniors about majors in speech pathology, dance educations, special education, counseling and other less familiar disciplines. High school students often have a low opinion of teaching as a profession, and other careers appear more exciting and lucrative. This reform program has improved the image of the profession in potential education students as well as practicing teachers.

A future goal is to provide more support for these young teachers after they exit the School of Education. Statistics indicate the percentage of teachers leaving the classroom has increased steadily during the past few years. Very few school systems have support for teachers in the first year. This is the area of program reform to which more attention needs to be directed. This office communicates with graduates on a regular basis. But they need more than cards,

notes and newsletters. It needs to be determined if they have a master teacher as a mentor in their school who provides advice and support. The amount and quality of support they receive from school administrators needs to be investigated to see if administrators are encouraging them to try new and creative teaching methods. Pulling together new teachers from neighboring schools for peer discussion and support is under consideration.

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Edinboro University of Pennsylvania

Edinboro, Pennsylvania

Student Entry and Retention in Teacher Education

Students are who are aspiring to complete teacher education programs are enrolled at the Foundation Level of teacher education. At this level, the program is explained and the set of expectations are outlined. Students with at least 64 credit hours may apply for advancement to the Competency Development Level. This level denotes successful attainment of the required Quality Point Average (QPA), plus the satisfactory completion of entry-level education courses and successful completion of the Core Battery of the NTE. Following the completion of at least 96 credit hours, students may apply for advancement to the Student Teaching Level. Students at this level have maintained the required QPA and have completed necessary course work in preparation for the student teaching experience. At the successful completion of degree requirements, students are advanced to the Certification Level.

Intended Outcomes

The Student Entry and Retention in Teacher Education (SERTE) Policy was developed to establish standards and procedures for completing teacher education at Edinboro University of Pennsylvania. It provides a common set of expectations for students and faculty to assess progress toward attaining the quality standards that are advocated at the state and national levels for entry into the teaching profession.

Lessons Learned

The policy has been instrumental in raising expectations of students planning to enter the field of education and in facilitating communication among the students and the faculty on academic standards. The policy requires a significant amount of monitoring of the stages of progression of the students, and this monitoring process has been aided greatly by the development of a special database. As there are variations in individual academic programs at any institution, the establishment of such a comprehensive policy requires careful scrutiny to insure that all requisite program considerations are included in the overall policy and in the procedures.

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Grambling State University
Grambling, Louisiana

Professional Accountability and CARE

Standards for Teacher Education are considered by GSU faculty to be an essential element of the teacher preparation program. So that all faculty and students are involved in the "quality assistance" effort, entrance and exit requirements are incorporated into the "core" teacher education courses to be monitored by both faculty and staff. Throughout their matriculation, the students are aware of their professional status in terms of meeting state licensure requirements.

Through the Centralized Advisement, Referral and Evaluation (CARE) Center, faculty and staff begin advising students upon admission to the College of Education as pre-teacher education majors. The students continue such advisement until they become eligible for admission to a department. The CARE Center and lower division faculty monitor student progress through the admissions requirements to the department.

Upon meeting the state requirements for the NTE (CS/GK), the students interview with the Teacher Education Admission's Committee. After admission to the department has been granted, the students are assigned to the CARE Center. At that point, the students register for Advisee Report and are assigned to upper division faculty. These work together to advise the students throughout the programs and on to graduation.

Intended Outcomes
All pre-service teachers must meet entrance and exit requirements on performance indicators determined by the state of Louisiana. The Department of Teacher Education has implemented a Centralized Advisement, Referral and Evaluation (CARE) Program with professional accountability laboratories integrated into the curriculum.

Lessons Learned
No changes are anticipated in the program at this time. The number of students completing the program has increased dramatically. The major problem has been lack of program resources (i.e., funding to provide for sufficient faculty to meet the needs of the rapidly expanding student population).

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State University of New York College at Potsdam
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Improving Teacher Training Through Cognitive Mapping

Cognitive mapping involves analysis of the complete teaching/learning act. The future teacher and a supervisor diagram a lesson in a post-conference to ensure that it provided flexibility in

learning styles and assessments. The analysis is designed to examine ways in which the lesson fulfilled every student's needs and achieved desired outcomes of meaningful learning experiences. It changes the way teachers think about teaching and it is a major reform that all restructuring literature urges.

Suppose a novice teacher does not understand how to promote individualized student achievement. There has been the inclination for novice teachers to teach the way they have been taught, which includes evaluating student performance in traditional ways. Training future teachers how to use cognitive mapping increases their ability to transform knowledge about knowledge into knowledge-use, which in turn contributes to providing their students with meaningful learning experiences.

Training future teachers in the use of cognitive mapping contributes to reducing the greatest difficulties they face as instructional practitioners by helping them focus and design meaningful learning experiences for students.

Intended Outcomes

This reform is designed to ensure that future teachers know how to help their students use and apply different kinds of knowledge in real-life challenges.

Lessons Learned

Several encouraging things were learned that will change the way the university approaches teacher preparation. Since beginning teachers have difficulty "seeing everything" in instructional practice, the project reveals that cognitive mapping contributes to their greater understanding of how space and time can be used to meet the needs of all their students, particularly in assessment. For example, the beginning teachers who have been trained in cognitive mapping rarely use constructed-response evaluation instruments; rather they create integrative tasks which call for the use and application of different kinds of knowledge and skills.

This reform empowers beginning teachers as well as their students. As a result of this reform, beginning teachers have been agents of change in some school districts. Based on feedback from mentors and administrators, some educators have re-examined their tasks and their products.

The difficulty of implementing this reform lies in the fact that it is difficult to teach teachers how to give up teaching to objectives and competencies on standardized tests and other imposed measures. It is difficult for them to forget everything they have learned in their educational experiences. In this respect, the project staff would do two things differently. First, the staff would ensure that a possible mentor is "ready" for this new "product" (novice teacher). Second, they should implement this reform earlier in the teacher preparation program since it required extensive training in a new way of thinking about teaching.

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University of Southern Maine
The Extended Teacher Education Program (ETEP)
Gorham, Maine

The Learning Results/Outcomes Project

The Learning Results/Outcomes Project, a collaborative effort that joins the University of Southern Maine, the University of Maine at Farmington, and Bates College, is sponsored by the Maine State Department of Education and the National Association of State Boards of Education (NASBE). It is one of three NASBE projects sponsored nationally. The project is redirecting the teacher education programs of the collaborating institutions and giving important data to the state as it re-considers teacher certification practice and policies, a clearly unusual grassroots approach to policy development.

To date the project has engaged the teacher education programs of the three institutions in identifying standards for new teachers considering both similar efforts at the national level, i.e., the work of the Interstate New Teacher Assessment and Support Consortium (INTASC) and the National Board for Professional Teaching Standards as well as Maine's Common Core of Learning standards for students. It has also engaged in the institutions in identifying performance assessments and testing them, especially the use of portfolios. Finally, the institutions are engaged in judging if the standards have been met.

Intended Outcomes
The project, designed to develop an alternative approach to initial teacher certification, is engaged in crafting a set of high and rigorous standards for what beginning teachers should know and be able to do; and devising and testing performance assessments by which teachers demonstrate that they meet the standards and are ready to take responsibility for a class of students.

Lessons Learned
The project results from the first year of this two-year project revealed that standards can serve multiple uses in a teacher education program: as a guide for students, their mentors and cooperating teachers to the goals, philosophy and standards of a program; as measures student must meet; and as a guide to the judgments that teacher interns are indeed ready to take responsibility for a class of students and for initial teacher certification. Portfolio presentations—no matter how these were defined—became significant learning experiences for interns and university and school-site faculty. This year, standards will be revised and difficult issues of how judgments of portfolios are made, with what validity and reliability, will be undertaken.

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Diversity in Teacher Education: Faculty, Students and Curriculum

Armstrong State College

Savannah, Georgia

Pathways to Teaching Program

The serious shortage of minority teachers across the nation has been documented. The projected number of minority teachers for the state of Georgia in the year 2000 is 5 to 6 percent. A child can go from grade one to 12 and never have a minority teacher. In addition, there are numerous elementary schools that have no male teachers as role models. Further, many educational delivery systems for urban populations have been ineffective.

This program is the result of a four-year grant designed to increase the number of certified teachers, primarily minority males, and to prepare them to teach in urban schools. The program is a collaboration among two colleges and the local board of education. It provides 80 percent scholarships, networking support, and incentive awards for academic performance innovative programs of study. It infuses contributions of minorities into the educational curriculum. It provides mechanisms for collaboration between a traditionally black college and a traditionally white college. Scholars, identified by the public schools as having exemplary employment records, are released one day per week to take courses on the college campus. These scholars are paraprofessionals, substitute teachers, school clerks and secretaries. The fact that nearly 450 paraprofessionals, secretaries, substitute teachers and school clerks have applied to the program demonstrates the interest of minorities in this area to enter the field of teaching. This program enables more minority and males to further their education and enter the teaching profession.

Intended Outcomes

The program will increase the number of teachers, primarily minorities, and improve educational delivery to urban environments. The dire need for minority teachers is demonstrated by the fact that 100 percent of the graduates of this program have been hired by the board of education.

Lessons Learned

Experience has indicated that the next grant should include increased funding to hire additional secretarial staff, and provisions should be made for release time so that existing faculty can assess current curricula, agree on needed changes, begin implementation, and determine progress. Mechanisms must be developed so that Scholars can be released from their positions one day per week to take college courses. Part of the original agreement between the board of education and the college was for the college to provide regular students to cover the work of the Scholars. However, the college has not been able to fully fill the positions of the released Scholars during that time. Finally, courses must be revamped to include additional practice hours when Scholars can spend time in real classrooms observing and putting theory into practice.

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Teacher Preparation for Military Retirees

This program provides a unique, collaborative, alternative route to initial teacher licensure. In 1993, Armstrong State College received a grant from Coca Cola to develop and pilot an experimental program to prepare retiring military who hold baccalaureate degrees to become licensed classroom teachers in critical fields. Fast track programs which incorporate documented military experience are individually planned for each student. Faculty advisors are placed directly on two military bases and some classes are also provided on location. Professional Development Schools provide clinical experiences through a variety of unique curricular designs. The high degree of success of this project is a result of the collaborative efforts among the local county school system, the military educational service office, the State Professional Standards Commission, and the college. The program provides much needed minority and male teachers for the profession. The Armstrong program has recently received a second grant and has been selected as a model for military teacher preparation for Georgia and the southeast by the National Consortium for Educational Access.

Intended Outcomes

The program is designed to attract retiring military personnel into the teaching profession; to enhance the recruitment of minorities into the teaching profession; to develop an alternative preparation program "on location" for a military population; to organize and utilize professional development schools in the preparation of teachers from the military service; to develop an outcome-based professional component; and to develop a program whose strength is founded and perpetuated in the collaborative effort of the military, higher education, and a local educational agency.

Lessons Learned

Early in the program, it was discovered that expanded field-based experiences are essential for military retirees. Military personnel were simply too far removed from working with and relating to early adolescents. The field components were increased in situations where the need was apparent; the results were excellent. It was also discovered that time could be saved in military transcripts analyses if training sessions for military counselors were provided where counselors were given the information they need to prepare military personnel for their first visit with the university faculty advisors.

The first licensed teachers from this program began their second careers in the fall of 1994. Reports indicate that they are doing extremely well.

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Bowling Green State University

Bowling Green, Ohio

General Teaching Methods in Secondary Schools (EDCI 370): Urban Center

The main goal of this course reform is to provide pre-service teachers with an opportunity to learn secondary teaching methods through discussion, seminars, and micro teaching in a

multicultural, urban environment. To accomplish this goal, the learner (teacher candidate) must develop the ability to understand and apply the knowledge, skills, and attitudes necessary for functioning effectively in a multicultural, urban secondary school classroom. Pedagogical knowledge, derived mainly from the disciplines of educational psychology, sociology and educational research, is developed in a skill developing context of reflective analysis, problem solving and decision making.

The first five weeks of the course involves the university students engaging in learning activities at Bowling Green State University. After that period, the learning and teaching activities take place at the urban center for nine weeks. Learning activities include participation in seminars, small group activities, and reflective analysis conferences which follow each micro teaching session. Teaching activities involve micro teaching to small groups of high school students in an after-school program. Micro teaching lessons reinforce concepts already learned or introduce new concepts that will strengthen the high school students' understanding of a content area. Following the nine weeks at the urban center, the university students return to Bowling Green State University to reflect upon their experiences at the urban center. Teacher candidates learn to interpret and translate learning and instructional theories into actual teaching practices. Ultimately, the program strives to provide professional educators who use a justifiable and well grounded knowledge base to make instructional decisions that promote the best student learning possible, and provide these professional educators with extensive urban, multicultural experiences.

Intended Outcomes

Since many pre-service teachers from Bowling Green State University come from a single culture suburban or rural community, they lack an understanding of and familiarity with the multicultural environment of the urban setting. Providing instruction and practice teaching at an on-site urban high school provides greater contact among urban teachers and pre-service teachers; and the collaboration of urban personnel and the university enhances the communication between urban education and higher education, thus enabling pre-service teachers to observe and participate in the integration of theory and practice.

Lessons Learned

The university learned that this experience is valuable for our students. This experience—an urban, multicultural methods experience—provides students with an opportunity for insight into the urban, multicultural environment that, in other ways, would be difficult to replicate. For a rural university, providing students with such experience is critical, noting that the student population arrives on campus from what is primarily a single culture suburban or rural community.

When asked what the university would do differently, the response leans more toward the difficulty experienced in attempting to expand programs like this. Frequently, due to the intensive nature of the programs, expansion to other training programs (e.g., the elementary education teacher training program, the special education teacher training program) becomes nearly impossible. Not only does such expansion expend a tremendously high degree of resources, but it also over-utilizes the urban, multicultural environment. Consequently, while the university might not do something differently, it would certainly look at ways in which initially successful programs can be expanded to other training populations without saturating the public school environment, and with a sense of cost containment.

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California State University, Fresno

Fresno, California

Elementary Teacher Cadet Program

Higher education collaboration with P-12 schools and community is reflected in the Elementary Teacher Cadet Program. Recruiting minority language teacher candidates in the state of California is of vital importance, due to the ethnically and linguistically diverse student population. Early identification of students who desire to seek teaching as a career and engagement in on-going tutoring practice is part of the training component. The Elementary Teacher Cadet Program focuses on training fifth and six grade students as cross-age tutors. In order to attract the fifth and sixth grade students, collaborative links with the local school district is essential. Ten school sites are currently participating in this program. Teachers select students who are willing to serve as cross-age tutors for children in K-3 grades. Elementary Teacher Cadets participate in special training at the university. Early exposure to the university setting by attending workshops provides an opportunity for student to engage in conversations with professors, tour campus, and develop a sense of belonging to a cohort of students that are on a career path.

The teacher cadets serve as cross-age tutors at their school sites during their vacation or off-track periods. The key program objectives include promoting an intervention plan that guarantees successful retention of students in schools and the recruitment of future teachers; enhancing the academic skills and self-esteem of pre-selected fifth/sixth graders; and establishing collaborative efforts with schools, community agencies and the university. The collaborative linkage with the university permits tutors to experience being part of a special cohort of future teachers in training. Lowering drop out rates, exposing student teachers to role models, and involving parents is inherent in this experience.

Intended Outcomes

The intended outcome of the Teacher Cadet Program is to establish a systematic career ladder for elementary students who aspire to become teachers. There is a special emphasis on students from under represented groups. This early strategic plan guarantees and promotes higher retention rates and targets recruitment of future teachers.

Lessons Learned

The greatest impact of the Elementary Teacher Cadet Program is that 200 fifth and sixth grade cross-age tutors are assisting approximately 5,000 -6,000 K-3 grade children in a school year. The language and reading skills of K-3 children are enhanced through the efforts of the tutors who also serve as role models. As a result of their training, the skills gained by the cross-age tutors enhance their development, study skills organization, and academic skills. They have learned to work as a team, encouraging younger learners in the classroom. University faculty and service agency personnel are involved in the training, yet one of the challenges is to use more student teachers as the trainers. This year, the program piloted one session using stu-

dent teachers from another university program, Mini-Corp. The elementary cadets appeared to ask more questions and were generally more involved in the discussions in these sessions. Another aspect of the program that merits additional attention is the need to conduct a follow-up study of the teacher cadets through their middle school and high school years. Funds are needed to develop a data base and do some longitudinal studies.

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California State University, Los Angeles

Los Angeles, California

Teacher Diversity Project/Global Learning Partnership

Diversity in teacher education requires building a diverse teacher workforce, and examining ways to incorporate multicultural and global education concepts into the pre-service and in-service education of teachers. When these tasks are united in the high school education of underrepresented students, the result is a culturally rich academic curriculum which enhances students' self-esteem, respect for all cultures, and ability to craft culturally-rich learning experiences for children. This unique early teaching experience for underrepresented high school students requires that experienced teachers and university faculty reconceptualize both high school and university curriculum content and teaching practice.

The present reform project is a school/university collaboration which encourages underrepresented students to pursue higher education and teaching, through financial support and a culturally-rich academic curriculum infused with the knowledge and practice of pedagogy. The project joins education and content-area faculty from CSULA, with faculty from the Immaculate Heart College Center, and teachers from Los Angeles' Crenshaw High School Teacher Training Magnet. The collaboration is linking multicultural and global studies concepts to transform curriculum and teaching for underrepresented high school students enrolled in the Magnet program.

Intended Outcomes

Two school/university projects combine in a single reform effort which seeks to encourage underrepresented high school students to pursue higher education and the teaching profession, by enhancing the high school academic curriculum with pedagogical knowledge and experience, and multicultural/global studies concepts.

Lessons Learned

Successfully recruiting underrepresented high school students into teaching requires a culturally-rich academic program and practical early teaching experiences. Preparing teacher educators and experienced high school teachers to develop and deliver this early teaching opportunity involves a multi-layered collaboration. This reform effort has learned this, and has succeeded in creating both intra- and inter-institutional collaborations leading to successful recruitment for diversity, and curricular and instructional change. Continued success

of the reform requires strengthening the educational experience of underrepresented students by expanding the multicultural/global studies curricula and by instituting instructional change to include the entire high school curriculum, and the curriculum of teacher education. This would create an educational continuum not yet achieved.

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California State University, San Marcos

San Marcos, California

(Bilingual) Cross-Cultural Language and Academic Development Credential and Infusion Across Content Core Curricula

The (Bilingual) Cross-cultural Language and Academic Development Program actively involves and has an impact on faculty, students, the local schools and curricula. It should be noted that the (B) CLAD is an emphasis program, which focuses on language, literacy, culture and methods associated with the organization of learning and instruction for culturally, ethnically and linguistically diverse students. It is the base program offered at CSUSM across all credentials. First, faculty are actively engaged in the implementation of this program, and in all courses. This indicates a heavy amount of faculty development in the competencies (theory and practice) of the (B) CLAD. Second, students are actively engaged (across their course of study, fieldwork and student teaching) in the competencies related to (B) CLAD. Third, a major restructuring of the curricula and instruction (associated with diverse students) is a critical component. Instruction is delivered so that candidates acquire insight into a myriad of learning and instruction models along with bilingual/multicultural content, e.g., faculty use highly interactive instructional approaches and processes, including multimedia, micro teaching, critical pedagogy and personal histories. Faculty (from all disciplines) and students are involved in this component. The (B) CLAD is an "alternative" to "traditional" credential programs.

The goals of the program are to increase access to the core curricula for underserved students emphasizing inclusion; prepare all teachers (i.e., English only, bilingual, mainstream, special education, K-12) in theory/methods that benefit all children regardless of national origin (e.g., native language, ethnicity, gender, cultural experience); build upon students' sociocultural experiences to increase the possibility for success; move beyond theory to practice and dialogue surrounding language/ multicultural issues; and be knowledgeable and work to build on models of multicultural education that suggest that social justice is a critical component of teaching, that teaching must be culturally responsive, and that students need to be empowered since disempowerment is antithetical to democratic ideals.

Language, literacy and culture (for diverse students) are major components across the curricula. Multicultural education is integrated across all content. Candidates are challenged to think, react and reflect on top/down versus inclusionary ways of designing instruction and critically visit, and revisit their own notions of practice.

Ongoing faculty development is key. Bilingual/multicultural and English-only staff work in tandem toward full implementation across all disciplines, e.g., math methods, science methods, by teaming, planning of curricula and instruction and ongoing articulation.

Intended Outcomes

The program is designed to prepare pre-service teacher candidates to effectively address the curricular, instructional, affective and social needs of a diverse student population along ethnic, linguistic and sociocultural dimensions; to prepare individuals for teaching as a reflective, critical, and intellectual endeavor in which it is understood that learning is a lifelong process; to stress an overarching theme of improving learning and instruction, and thus increase access to the core curricula for ethnolinguistic, diverse students and their families.

Lessons Learned

Issues of implementation arise (e.g., buy-in, varying degrees of implementation, authentic vs. superficial support for underlying premises.) "Buy-in" is essential to implementation. While the majority of the teaching staff support the program's spirit/goals (and voted on the infusion of CLAD across the core) "buy-in" is not 100 percent. A few faculty (5 percent) see these efforts as unconnected to them, their efforts or discipline, and feel that this is a "multicultural/bilingual" thing. Fortunately, colleagues who support and work toward full implementation far outnumber those who do not. Honest and open discussion (by all) must occur from the outset.

The placement of candidates in classrooms for which there is a "match" with the goals philosophy, theory and pedagogy that undergird the teacher-preparation program is essential. While CSUSM is located close to districts with some of the most promising practices, placing candidates in these sites is essential. In planning such programs, the project staff works with all "other" school districts (through formal planning and university/school agreements) for the preparation (in CLAD) of cooperating teachers and principals.

The CLAD is a base program to develop practitioners who address the needs of all children. This goal is evidenced in many of the candidates, yet some question the necessity of the CLAD competencies (in all their classes) and voice that "I will never work with this population."

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Cleveland State University

Cleveland, Ohio

DeWitt Wallace Reader's Digest Pathways to Teaching Careers: Tomorrow's New Teachers (TNT)

Dewitt Wallace Reader's Digest Pathways to Teaching Careers Program addresses the severe shortage of minority teachers in Cleveland and Ohio. By the late 1990s, more than 35 percent

of school children will be ESL and minorities, while less than 8 percent of the teaching staff will be so. The problem is more serious in urban areas. Many experienced minority instructional aides represent a great source of future teachers. They have an interest in teaching and can work and pursue certification simultaneously, integrating theory and practice. A Conference Club seminar has been created to foster that integration.

An analysis of perceived needs of nontraditional students resulted in the design of courses/seminars/workshops specific to the needs of this group, such as an Issues in Education course to explore social issues that impinge on contemporary urban education, or a Test Taking/Study Skills course to address the efficient acquisition of information, stress management and strategies used in approaching a test.

Conference Club seminars provide a strategy for students to assess their own development and analyze their own philosophies while examining the relationships between theory and practice and issues related to the needs of children. Share and Tell Workshops bring cooperating teachers together with their instructional aide partners and college faculty as a strategy for fostering lines of communication and changing prevailing classroom strategies.

Support services are available in the form of a project coordinator (75 percent time), academic advisement and an IEP for each student, a mentoring program, specialized assistance, which includes writing skills workshops, math tutoring, and individual counseling, assistance in accommodating emergency needs (e.g., purchase of text books, child care, etc.), and ongoing support as students make the transition from the role of paraprofessional to that of the teaching professional.

Intended Outcomes

The TNT program seeks to increase the number of culturally diverse certified teachers, revise and/or restructure course offerings at Cleveland State University to accommodate the unique competencies and classroom experiences of the TNT students and build upon their strengths and experiences, increase access to higher education for culturally diverse instructional aides, and assist the Cleveland Public Schools in increasing staff diversity.

Lessons Learned

The project has demonstrated that selectivity and high expectations for students result in their high performance (mean GPA >3.2), scholarships attract very bright student applicants, school district involvement is essential in recruitment and selection and ongoing communication about students, a creative, committed, experienced coordinator to provide personal and academic advising and support is critically important, faculty facilitating the integration of classroom experience with new information is vital to maximize program benefits for students, college faculty and administrative support for the program is crucial, the "sense of community" fostered by the project coordinator contributes significantly to students' success and enhances benefits of their university experience, students need an area for studying together near faculty and the coordinator, having students secure their own mentors contributes to successful mentoring, and maintaining contact between schools and the program contributes to mutual satisfaction.

In the future, project staff would like to spend more time developing additional new courses (more individualized to accommodate experience prior to implementation), spend more time

working with principals and certified teachers from the students' places of employment prior to implementation; recruit aides from suburban school districts with large minority enrollments as well as urban schools; match minority high school students interested in teaching with selected instructional aides for classroom interactions as future teachers; request waivers of some program requirements based on students' classroom experience at the point of admission; and involve more faculty in program development and policy decisions before the program begins.

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Delta State University

Cleveland, Mississippi

Teacher Assistant Program (TEP)

Numerous K-12 school administrators indicated regret that they employed, among their teacher assistants, many outstanding teacher prospects who could not access the teacher education program because of their full time employment and their low annual income ($5,500 - $6,500). A program designed to match their current income was developed to allow selectees to enroll fulltime in the Teacher Assistant Program (TEP).

Delta State University's School of Education originated a minority teacher recruitment program which focused on a pool of outstanding teacher assistants who, with recommendations from their district, were enrolled in the TEP. This project was designed and implemented three years ago to recruit minority teachers into the field of elementary education. Superintendents were deeply involved in developing the application criteria and assisted the School of Education in formulating a screening and selection process. Assistant teachers who are presently teaching in school districts that belong to the Delta Area Association for the Improvement of Schools are eligible to apply. Recipients were required to attend full-time and to maintain a satisfactory university 2.0 GPA per semester. Recipients received $5,800 per each nine months (fall and spring semesters) through scholarship and financial assistance sources. The university has obligated $180,000 annually through its financial assistance program to serve a maximum of 30 students in the TEP.

Intended Outcomes

The university established a program to recruit highly qualified minority assistant teachers into the TEP. A financial incentive of $5,800 per participant for the academic year (nine months) was established.

Lessons Learned

The program assumed that these targeted students would enroll if the barriers of full-time employment and loss of income were addressed. In fact, this assumption has been found to be correct. However, for those who enrolled, attrition has been minimal. The screening procedures should be portfolio- and interview-based. Selection should be made by committee.

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Eastern Kentucky University
Richmond, Kentucky

Minority Faculty and Student Recruitment and Retention

The College of Education Minority Recruitment and Retention Committee was appointed to assist in recruiting minority faculty and students and in improving the retention rate of the students. The committee appointed is multidisciplinary and its membership reflects campus-wide involvement. Committee members are from the Admissions Office, the Career Development Office and the College of Education.

The committee's goals are to increase the number of minority faculty; increase enrollment of minority students in the teacher education program; and improve retention rates of minority students in the teacher education program.

To complete its charge, the committee focused on scholarships. Three $2,000 scholarships were given to minority students in the teacher education program. This financial incentive encouraged all three students to stay in school. Twenty-two thousand dollars are available for students during 1994-95. A second focus was on networking. Committee members are encouraged to attend and to present at national meetings to stay informed about trends in recruitment and retention programs and to share what this university is doing. A third focus was on pre-college programs.

Intended Outcomes
The intended outcomes of this reform are to increase number of minority faculty, increase enrollment of minority students in the teacher education program, and improve retention rates of minority students in the teacher education program.

Lessons Learned
Students appear to pay little attention to what they receive in the mail, what is posted on bulletin boards, or what is published in campus publications. Because minority students have more options for careers, recruitment is difficult for those in colleges of education. To recruit minority students into the teacher education program, one must involve middle school and high school students in career development programs conducted jointly by local school districts and colleges of education. Minority faculty are much in demand throughout the nation. Networking is one of the most effective means of recruiting faculty.

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Elizabeth City State University

Elizabeth City, North Carolina

Incorporating Multicultural Education Throughout the Teacher Education Program

The teacher education faculty and the public school system administrators and teachers saw the need to be better prepared to meet the individual learning needs of a diverse student population. It was generally observed that often students are judged by one set of standards, those projected by white, middle class protestants. It was felt that students bring different values and belief systems to school based on their cultural background. Cultural background influences how a student learns. Often teachers have little understanding of any culture other than their own.

To sensitize prospective teachers to the influence of various micro- cultures on the learning styles of the students they will teach, the university added a multicultural education course and integrated multicultural competencies throughout the teacher education curriculum. Education that is multicultural provides an environment that values cultural diversity and portrays it positively. Students' educational and vocational options are not limited by gender, age, ethnicity, native language, religion, class, or disability. Educators have the responsibility to help students contribute to and benefit from a democratic society. The reform prepares prospective teachers to use diversity to develop effective instructional strategies for students in the classroom. In addition, multicultural education will help prospective teachers think critically about institutionalized racism, classism and sexism. Ideally, the reform will prepare educators who will begin to develop individual and group strategies for overcoming the debilitating effects of these societal scourges.

Intended Outcomes

This reform is designed to help prospective teachers develop positive attitudes toward their own culture and the culture of others. In addition, it will help prospective teachers gain an understanding of and an appreciation for different learning styles as they make decisions about instruction.

Lessons Learned

Implementing this reform has been both interesting and challenging. Many prospective teachers have been exposed to a social curriculum that makes positive and negative statements about persons of different ethnic backgrounds, classes, religions, native languages, gender, age, and physical and mental abilities. Often distorted messages about people who are ethnically or religiously different from oneself are portrayed in the social curriculum. It is necessary to help prospective teachers interpret and analyze the cultural cues that are forced on them daily. Many of the students in the program had little or no experience with individuals from backgrounds different than their own. They continue to depend on the stereotypes, generally negative, that emerge from the social curriculum. As a result, certain racial, gender and religious issues had to be addressed cautiously at first, so as not to offend anyone. As the students began to gain a better understanding of themselves and their personal biases, they were able to move forward into more in-depth probing of multicultural education.

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Emporia State University
Emporia, Kansas

Future Teacher Academy

One week each summer, 50 to 55 high school juniors and seniors are invited to participate in the Academy. High academic standards, a recommendation by high school faculty, and a desire to explore teaching as a career are the criteria for admission. Students who might not have thought about the teaching profession seriously, or who may have doubts about it, are exposed to the teaching experience. An emphasis is placed on attracting males and minorities to the Academy.

During the Academy, participants are exposed to university faculty and master teachers who model the very best in teaching techniques. Participants attend classes and seminars in leadership, cooperative learning, decision making, problem solving, learning styles, classroom management, and education as a career. To encourage students to pursue careers in education, scholarship opportunities are available to Academy graduates. Graduates are invited to participate in additional Teachers College activities such as special workshops, lectures, dinners and seminars. Ninety percent of the students who attended the Academy have enrolled in a teacher education program.

Intended Outcomes
The Future Teacher Academy is intended to attract students to the teaching profession, improve the quality of students pursuing teacher education, and ultimately, attract more minority and male teacher candidates.

Lessons Learned
In the past, the response from high school students has been extremely positive. In 1994, over 100 students applied to the Academy. Fifty-three were accepted, 41 female students and 12 male students. The mean grade point average for the group was 3.91. However, in the future, Academy staff need to improve their efforts to attract more male and minority students. At this time, students are recruited by mailing information to high school counselors across the state. Next year, the Academy staff would like to target schools with high minority populations, and visit those schools personally. Academy staff also plan to work directly with the university's minority affairs director to develop a support program for Academy graduates who attend ESU's Teachers College.

Academy staff have discussed visiting junior high schools and middle schools to encourage students to begin thinking early about teaching as a career. Academy staff also would like to work more closely with Future Educators Clubs and Associations across the state.

Academy staff would like to offer participants more choices within the academy, for example, a menu of subject area courses to choose from or special interest areas such as counseling, school psychology, administration, special needs, alternative schools, etc.

It has been proposed that a mini-Academy be held for junior high and middle school students, and a second mini-Academy be held for minority students.

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Fayetteville State University

Fayetteville, North Carolina

Foundations of Multicultural Education and Diversity

Currently many public schools do not have appropriately trained teachers to educate many of our students to the highest possible level. Children from low-income families and those from some minority groups - primarily African Americans, Hispanics, Native Americans and some Asians - have a higher incidence of dropping out, retention in grade, and special education placements than do other children. It is probable that these students will not obtain the skills necessary for full participation in the economic and civic life of the country if current trends in educational achievement continue. Further, the social stability of the country is likely to become increasingly questionable due to the inequity that results from differences in educational achievement among children. Cultural awareness is not adequately addressed in the majority of the curricula.

A faculty member who specializes in multiculturalism and diversity has been hired by Fayetteville State University to teach classes on diversity. He has developed two diversity courses at the undergraduate and graduate levels. Workshops on multiculturalism and diversity have been conducted and infusion across the curriculum has been encouraged. An educational forum, whose theme was diversity, has been co-sponsored by Fayetteville State University and the Cumberland County schools. Further, a student council on diversity has been developed on campus.

Intended Outcomes

The intended outcome of the reform is to sensitize prospective teachers to cultural differences so that children's potential achievement can be realized.

Lessons Learned

The majority of issues covered in many workshops or programs dealing with diversity emphasize surface cultural awareness, as opposed to deeper cultural issues. As such, they are not effective. Therefore, more serious approaches are needed that address the philosophical and psychological issues.

In addition, if a diversity course is offered as an elective, students may choose not to enroll. Finally, the methods of dealing with diversity should be carefully approached due to resistance that results from the feeling of being coerced.

A different activity that would take place in this reform would be to provide students with information, e.g., reports on diversity, as well as real situations on diversity that show actual program effectiveness.

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Fort Lewis College

Fort Lewis, Colorado

FLC/Navajo Nation Teacher Preparation Program

The current rate of population growth in the Navajo Tribe will double the population in the next two decades. Some studies reveal that approximately 80 percent of the Navajo people are under the age of 25. A large percentage of Navajo students are not graduating from high school; the dropout rate in many schools is at least 60 percent. A study by the Navajo Department of Education identified the following problems: reservation schools do not retain teachers for more than a year or two; the majority of teachers (92 percent) on the reservation are non-Navajo; schools on the reservation do not provide enough positive role models; and few bilingual Navajo speakers are licensed by the states of New Mexico and Arizona.

The program is based on several assumptions: the shortage of Navajo teachers exists in part due to the economics of higher education which deter students from attending college as a regular student; many of the prospective students were essential members of an extended family with numerous forces present to keep them from leaving their communities; conventional teacher education entrance exams presented a formidable barrier; teacher aides represented a large untapped resource of prospective teachers because of their years of experience with children; and the bilingual skills and cultural knowledge of these aides would make them extremely valuable teachers and role models for Navajo children.

Professors travel to the reservation and teach on a weekly basis. They use cooperative teaching approaches and encourage students to create Navajo-specific curricular materials such as Navajo versions of books, experienced-based literature, Navajo social studies units, and computer software programs in the Navajo language. Students enroll in five courses in Navajo Language and Culture for the Ford Foundation Program and four courses in Navajo Culture for Title V students, offered by the Navajo Community College in Shiprock, N.M. Each student was counseled through a student-constructed major to fit the program to the student rather than fit the student to the program.

Intended Outcomes

The program hopes to change the direction of education on the Navajo Reservation by putting more Navajo teachers in the classroom. Navajo teachers will be in a better position as teachers than non-Navajos because they understand the cultural influences that affect learning styles, personal needs, and academic strengths and weaknesses of Navajo students.

Lessons Learned

The Department of Education has learned that on-site classes and student-constructed majors will produce a higher retention rate for Navajo students and possibly for other minority students. Numerous students completing the program are now teaching on the reservation as schools compete for bilingual and bicultural teachers. The Navajo students are more seri-

ous and dedicated to the program than traditional on-campus students. The off-campus program has been improved by the working relationship with the Navajo Community College to provide Navajo language and culture classes. The cultural awareness and sensitivity of participating faculty members has been heightened.

A second phase of the program has incorporated more computer classes designed to assist in producing Navajo-specific teaching materials. The program has hired five Navajo graduates of the first phase as on-site coordinators. Scholarships and stipends enable students to attend classes rather than work on weekends.

The program would hire Native American professors, however, there are none currently available. The department is attempting to start an intern program to provide opportunities for Native American students to complete a doctoral program and become members of the staff.

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Kean College of New Jersey

Union, New Jersey

Increasing Minorities in Teacher Education Programs

The rationale for focusing on this reform area is the decreasing number of minorities in the teaching profession. While minority students comprise nearly one-third of all students enrolled in school, minority teachers represent only 13 percent of the teaching force.

To increase the number of minority teachers, the reform effort has concentrated on recruiting, retaining, funding and supporting three different pools of potential teacher education students. One pool is comprised of middle school and high school students. Established in 1987, Project Adelante for Latino middle and high school students brings 200 students to campus every day for five weeks in the summer and every Saturday during the academic year. High school students mentor and tutor, and get college credit for introduction to education courses. The Center for Teaching and Career Development at Elizabeth High School and Weequahic High School in Newark provides credit-bearing courses in Orientation to Teaching Careers to over 50 high school juniors and seniors.

The second pool is paraprofessionals. Projects Pathways to Teaching Careers and Project Teach bring over 67 African American and Latino teacher aides to Kean College to complete their teaching degrees.

The third pool consists of graduates of liberal arts and science programs. Funded by Philip Morris, the program encourages 10 career-changers to pursue teaching careers at the post-baccalaureate level.

Intended Outcomes

The reform effort is intended to increase the number of members of under-represented groups in teacher education programs (graduate and undergraduate) at Kean College by at least 10

percent in five years. In the last two years, the percentage of African American and Latino students in the School of Education has increased from 20 percent to 24 percent.

Lessons Learned

To make an impact on the number of members of under-represented groups who enter the teaching profession, aggressive strategies must be pursued. These strategies must focus on recruiting, retaining and graduating individuals from various pools. "Growing your own" collaborative approaches, such as programs that focus on middle and high school students, take time but are most rewarding and successful. Kean's Project Adelante students have a 92 percent graduation rate from high school. Tutors in the project have all entered teacher education programs. There are great numbers of African American and Latino paraprofessionals in the public schools. This group needs financial and academic support but is a natural pool for the teaching profession.

In working with these diverse populations Kean College's School of Education has learned that scholarships and other forms of financial assistance must be provided. Finances are preventing a great number of African American and Latinos from pursuing teaching careers.

Mentoring by faculty and by peers is essential. A caring support system needs to be established. Further, academic support must be provided and be readily available. ESL, Learning to Learn, Supplemental Instruction, and assistance in passing standardized tests are some of the systems that should be present.

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Lock Haven University

Lock Haven, Pennsylvania

Lock Haven University-William Penn Comprehensive High School Partnership

This program was designed to have a direct impact on the teaching faculty of the College of Arts and Sciences and College of Education and Human Services, while providing an opportunity for high-risk, low-income students from the same inner city high school to form a supportive group with a common goal— to complete a college education.

The faculty will have the opportunity, for the first time, of teaching an entire class of minority students whose backgrounds and life experience differ from theirs and whose varied learning styles require a variety of diverse teaching strategies. The students have the opportunity to learn how Central Pennsylvania and its rich cultural heritage developed and contributed to the political, economic and social diversities of the Pennsylvania citizenry.

This project has involved a broad spectrum of university personnel and services. The interaction that has occurred as a result of this partnership between administration, faculty, staff and students from both the public school and the university has had a positive impact toward the importance of early recruitment of minority students, as well as the recognition that de-

veloping diverse teaching strategies for students with alternative learning styles is critical to their success.

As the partnership has developed over the past three years, there has been faculty exchange, pre-service teacher education student exchange, student teaching placement, and the development of a summer urban seminar for university students in Philadelphia.

Intended Outcomes

Lock Haven University joined a five year partnership with William Penn Comprehensive High School in inner-city Philadelphia to identify low-income, high-risk ninth-grade African-American and Latino students. These students were recruited to complete a three-year college credit program for admission to any Pennsylvania State System university following the successful completion of their senior year and the summer resident early admission program.

Lessons Learned

This project has demonstrated that, in order to insure the success of the participants, a highly structured, well organized and orchestrated program of academic and enrichment activities is essential.

Lock Haven University students are employed as work-study student counselors who "model" success and who participate in year-round visitations, as well as reside in the dorm during the three weeks of residential study. All staff participate in enrichment activities. There is individual contact throughout the program year.

Students follow a schedule that includes two tutor-assisted study hours a day and monitored meal times. Every effort is made to establish positive study skills and group support systems.

Future changes will include trying to encourage each child's parent or guardian to visit Lock Haven University. The staff will work at finding two local adult sponsors for each student during their second summer to guarantee financial backing for their four-year college degree program at Lock Haven University.

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Metropolitan State College of Denver

Denver, Colorado

Lookout Mountain Youth Services Laboratory School

A central mission of MSCD's teacher preparation program is to prepare teachers for professional decision making in diverse contexts. Another mission is to meet the needs of diverse populations in the greater Denver community. The Lookout Mountain Division of Youth Services provides the college with an expanded diversity in the student population for the teacher education program.

On August 1, 1994, Metropolitan State College of Denver and its Division of Education assumed responsibility for curriculum, instruction and staffing of the educational program at Lookout Mountain, a correctional facility of the Division of Youth Services. This facility will be used as a laboratory school for the simultaneous renewal of the facility and MSDS's teacher education program. Individualized diagnostic and prescriptive services for the incarcerated youth are provided, as well as services from the Department of Reading and the Special Education program, for many of the youth in this facility are disabled and poor readers. In turn, the college is provided with a research clinical facility to study the educational needs of incarcerated youth.

Intended Outcomes

The project intends to establish a youth correctional facility as a professional development school for a teacher preparation program. Incarcerated youth are typically under served and frequently disabled. This will be a model teacher training facility for a special needs population.

Lessons Learned

More than half of the incarcerated youth suffer from a learning disability, attention deficit hyperactivity disorder, a developmental disability, or reading deficits. Many of them suffer from multiple handicapping conditions. The needs of the students are far greater than originally anticipated. In hindsight, a longer transition period for the assumption of responsibilities of the educational unit would have been preferable, with greater focus on the staffing required for meeting the variety of needs that the students exhibit.

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Missouri Southern State College

Joplin, Missouri

Cultural Diversity Workshops

Clinical dimensions of teacher education involve first-hand experience with schools, the people who work in and rely on them (i.e., teachers, students, parents, administrators, auxiliary personnel), and the culture that is reflected by the school's physical and social dimensions. The reform reported here connects prospective and certified educators to this clinical dimension by bringing the former to a context where face-to-face encounters and dialogue occur with teachers and students of diverse ethnicities (i.e. African American, Hispanic American, Asian American, Native American, international students, etc.).

An Ethnic and Linguistic Diversity Subcommittee is composed of two faculty members from Missouri Southern State College's Teacher Education Program, two area principals, and one area teacher. The committee is governed by MSSC's Clinical Experiences Advisory Committee. The subcommittee meets regularly each semester to plan workshops which are now a regular part of every prospective teacher's professional semester. Invitations to certified teachers in area schools are also sent.

Consistent with the goals of developing teachers who have sensitivity and understanding of cultural differences, two Cultural Diversity Workshops have been instituted each semester. The first aims to develop sensitivity by bringing students and teachers of diverse backgrounds to campus. In informal settings (small groups, panel discussions), they work with a facilitator to share "what it's like" to interact as a minority with the Anglo-Western European macroculture of the school. The second workshop stresses understanding of culture and typically involves teachers who have had significant teaching experience with students of diverse cultures or the involvement of multicultural trainers who facilitate workshop participants with the discovery of themselves as cultural beings.

Intended Outcomes

The intended outcome for the reform is to develop sensitivity and understanding of ethnic difference. The reform is aimed at prospective teachers in their final semester of student teaching and certified teachers by the State Department of Education.

Lessons Learned

Many prospective educators have never had significant contact with individuals from groups of recognized diversity. The need to institute multiple opportunities for ethnic encounters is patent. Presently, clinical experiences in other countries, with other teacher education programs, and with districts experiencing significant increases in diverse populations are being investigated. There is a consistent request for more time with ethnically diverse students and teachers. Moves to place prospective and certified teachers in touch with regional conferences on diversity, summer workshops and ESL training have been and are being made. There is a consistent reference to culture and cultural diversity as something possessed by "other" groups and individuals. This has prompted the subcommittee to consistently seek experts who can enlighten participants to the "culture within ourselves." Differences with respect to economic class, family background, religion, learning styles, etc., are being linked to "cultural" differences through these efforts. The presence of light refreshments (cookies, coffee, punch, etc.) at these events contributes significantly to the creation of a friendly, sociable atmosphere and to increased dialogue. The State Department of Education has taken a keen interest in the workshops and has contributed material and human resources for the occasions. The workshops have also precipitated a more active link between the state governing agency and the college. Three college faculty members now serve the state as designated ESL facilitators.

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Montclair State University

Upper Montclair, New Jersey

Newark Scholars in Teaching

Montclair State University and the Newark Public Schools are seeking to recruit high-ability minority students into teaching. The principal vehicle for this collaborative undertaking is the

Future Teachers of Newark Program which has been established in four of the city's high schools. Program participants who graduate in the top 25 percent of their class are invited to apply for admission to the university, where as "Newark Scholars in Teaching," they prepare for certification in New Jersey. Their professional clinical experiences are undertaken in the Newark school, where upon graduation they are guaranteed employment and are expected to teach for at least four years. Throughout their secondary school and collegiate experiences, the Newark students work with faculty mentors from both the university and the school district.

A combination of funding from the university, the Newark Public Schools and external sources support the activities of the Future Teachers of Newark Program and subsidizes each student during the four-year preparatory period. The project, which is easily replicable by other colleges and school districts, is assessed by both an external evaluator and a district-wide program advisory council.

Intended Outcomes

Montclair State University and the Newark School District recruit high-ability minority students into teaching. University and district faculty mentors work with students participating in the Future Teachers of Newark Program in four city high schools. The most capable students receive full scholarships to Montclair upon graduation with the promise of employment in Newark.

Lessons Learned

A number of insights have evolved from the Newark Scholars in Teaching Program. In the first instance, university faculty and admissions personnel have come to more fully appreciate the difficulty of competing for high-ability students of color whose consideration of a teaching career is mediated by the prospects of higher-paid and more prestigious career opportunities. This, despite the fact that university and school faculty mentors have had exposure to these students as they have participated in the Future Teachers of Newark Program.

The university has become critically aware of the problem of limited time in the schools for the activities of the Future Teachers of Newark Program. Project leaders have struggled with gaining the support of building administrators for establishing a common time for program meetings and activities.

Finally, as the Newark students have enrolled at the university, a good deal has been learned about the nature of the guidance and support which they have required to both adjust to and succeed as undergraduates. Although a faculty member is assigned to work with the Newark students, their individual situations and needs have, on occasion, exceeded that individual's capacities to troubleshoot and otherwise successfully intervene.

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Norfolk State University

Norfolk, Virginia

The DeWitt Wallace-Reader's Digest Pathways to Teaching Project

The percentage of minority teachers, particularly African-American teachers, has declined seriously since 1970. Locally and nationally, school personnel officers report difficulty in recruiting minority teachers. An objective of this project is to increase or at least retain the number of minority teachers employed by a local urban public school system. Secondly, the project focuses on identifying successful features for effective teaching in urban schools. The ultimate value of this project is the improvement of education for urban children who would benefit from having more teachers with diverse backgrounds.

To increase the numbers of certified minority teachers, this project recruits teacher aides, substitute teachers and other paraprofessionals in the Norfolk Public School System to enroll in teacher certification programs. Areas of need are identified by the Norfolk Public School System. Participants are provided with a comprehensive teacher education program that meets the teacher certification requirements of the Commonwealth of Virginia and satisfies the standards of compliance of the major professional organizations in various academic fields (i.e., National Council of Teachers of Mathematics). Skills, competencies and attitudes identified for successful teaching in the urban schools are emphasized. Seminars, workshops, conferences and other experiences are provided for program participants, in-service teachers, supervisors, administrators and other participants. Themes have focused on the characteristics of urban students, successful strategies in teaching urban students, and interagency and parental collaboration to meet the needs of urban students. Program graduates receive follow-up support during their first two years of employment. In addition, the regular teacher education program is continually being revised to incorporate the successful features of the program to focus on successful teaching in urban schools.

Intended Outcomes

The intended outcomes of the project are to increase the quantity of minority teachers employed by the Norfolk Public School System and the quality of instruction for urban children and to enhance the teacher preparation and in-service teacher development programs of the university.

Lessons Learned

This project began in January 1993 and has produced graduates who are all employed in an urban school system. Participants' surveys and responses from principals indicate program participants are performing extremely well. Because of this initial success, changes in the project's program will probably not be implemented.

Even though 74 participants, African-American and other minorities, have enrolled in the program, it is realized that minority students are being recruited into all professions. Therefore, it is becoming unrealistic to attempt to achieve a number of minority teachers equal to the number of minority students in the future. While extra measures are needed to recruit minorities into teaching, the university's regular teacher education program is continually being revised to incorporate the successful features of this project. This is being done be-

cause it is clear that all students in teacher education programs should be prepared to be effective teachers of all children.

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Northern Arizona University

Flagstaff, Arizona

The NAU/Ford Foundation/Navajo Nation Teacher Preparation Project

Participants in this project are limited to Navajo people. Students complete classes toward their certification and classes pertaining to Navajo language and culture. About 67 students are presently enrolled in this program. Most students are paraprofessionals. Students complete two to three classes each term, which are delivered to them at four sites on the Navajo Reservation. Classes are taught by adjunct faculty and regular faculty from the NAU home campus. Some classes are delivered over instructional television. In addition to the regular preparation classes, students complete classes in Navajo language and culture. The Dine Philosophy of Learning (DPL—a philosophy merging Western learning theory with traditional Navajo values and philosophy) is infused in the program.

Intended Outcomes

The goal of this project is to prepare Navajo teachers for service to Navajo children in public, tribal and BIA schools.

Lessons Learned

Students who are difficult to retain in a traditional on-campus program can be well prepared and retained in a program delivered in their home communities. Further, traditional Native American philosophies and values can be successfully infused in a teacher preparation program. To improve the program, more in-classroom supervision and support to students should be provided.

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The Rural Multicultural Training Collaborative

Native American, Hispanic and Anglo students participate in this year-long program. Though graduates of this program attain a high level of technical skills, a focus is on preparing them for work with diverse learners.

Approximately 20 students are in this program. During the fall term, about 10 Anglo students are joined by 10 Native American students. The group works and studies in a school-based program located in Tuba City, Ariz., (a small community on the Navajo Indian Reservation). Students work for 20 hours per week in classrooms and complete 18 semester hours of professional preparation classes. While in Tuba City, students learn Navajo, sign language, and

participate in a variety of cultural experiences. Classes are taught by an on-site program manager and other persons from the campus and the community. At mid-term, the Anglo students are sent to Cuernavaca, Mexico, to learn Spanish. They then travel to Yuma, Ariz., and are joined by 10 Hispanic students. Once again, this group works 20 hours per week in local schools near the U.S.-Mexico border and completes 18 hours of NAU classes. Classes are taught by an on-site program manager and other individuals from the campus and the community. Some instruction is delivered over instructional television.

Intended Outcomes

The goal of this project is to prepare special education teachers for service in rural and remote areas to work with highly diverse children and families. Another goal is to prepare minority teachers.

Lessons Learned

Students have professional and cultural experiences in this program that are very powerful and result in well prepared and highly confident professionals. The cultural experiences cause them to seriously reflect upon their career choices and their own personal life experiences. To improve the program, the connections between the students and the NAU campus (e.g., e-mail connections, FAX connections, etc.) should be increased.

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Purdue University

West Lafayette, Indiana

Introductory Teacher Education: The Urban Experience

The School of Education at Purdue is committed to instilling positive attitudes about cultural diversity and to introducing students to public schooling in diverse settings. Its leadership has sought to establish several initiatives that will place Purdue education students in schools that have socio-ethnic populations different from those found in Tippecanoe County, Ind., where the university is located.

The Urban Experience is a course in the teacher education curriculum in the School of Education at Purdue University. The course meets on the West Lafayette campus for part of its curriculum; for seven weeks of the semester the course travels to Indianapolis via a bus equipped with a microphone and video player. Enroute, the instructor conducts a class discussion devoted to issues in urban schooling, multicultural curricula, and whole-language instruction. Once in Indianapolis,, the students spend the day in classes in Ernie Pyle Elementary School, a culturally diverse inner city school. Students are assigned to specific classes and teachers, and they are expected to collaborate with the teacher to determine individual roles within the classroom.

Intended Outcomes

The urban experience component of the introductory teacher education courses is intended to expose education students to the cultural diversity of an urban school. Through the expe-

rience of a cohort group, students are encouraged to become more reflective on what constitutes best practice.

Lessons Learned

The learning derived from this experience has been rich and deep, ranging from logistical issues to conceptual concerns in curriculum and teaching. Faculty have learned how best to use the time in travel to the school, and have modified their pedagogy accordingly. In addition, the faculty's belief about the value of cohorts in promoting reflective education has been greatly strengthened. Certain topics, such as discipline, teacher loads, and parent involvement, that might not have surfaced had the students not traveled to Indianapolis, provided a common thread for class discussion. Faculty have discovered that a variety of texts, rather than just one, are needed. Finally the need for systematic follow-up has been underscored. Students used to being in the field for half days may face a professional loss when they go back to campus; faculty have needed to address the issue of how to have an excellent cohort experience.

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Purdue University North Central

Westville, Indiana

Initiative to Provide Pre-service Teachers with Classroom Management Experience in a Culturally Diverse Environment

Purdue North Central is located in a rural and somewhat agrarian community in north central Indiana. Pre-service students have relatively little exposure to, or experience with, educationally diverse populations because of this geography. The reform effort was an attempt to correct for this limitation.

For six of 16 class periods, pre-service teachers in EDPS 330, "Behavior in the Elementary Classroom," are transported to elementary schools which have various degrees of socioeconomic and racial diverseness. At these sites, student/teacher interactions are observed and logged in notebooks. Classroom management strategies are analyzed and compared to strategies that have been observed in other educational environments. Similarities and differences are noted through group interaction.

Intended Outcomes

There will be an elimination, or at least a reduction, of stereotypical thinking on the part of pre-service teachers in regard to the classroom behavior of diverse student populations. They will gain a clear understanding that, while diverse populations do have certain aspects of uniqueness, the basic principles that regulate human behavior can be successfully applied in classrooms no matter how little or how great their cultural diversity.

Lessons Learned

The reform has clearly shown pre-service teachers that widely accepted principles that regulate student behavior work in all classroom environments no matter what the cultural aspect

might be. It has reassured students that they would be quite capable of teaching in diverse climates even though their experience might be somewhat limited with some populations. Some have now chosen to seek employment outside of their home community in more diverse settings.

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San Diego State University

San Diego, California

Cross-cultural Language and Academic Development Credential

The Cross-cultural, Language and Academic Development Credential Program (CLAD) at San Diego State University clearly targets issues of diversity as they relate to all aspects of teacher preparation. CLAD provides teacher candidates with more training than basic credential candidates in three areas: language acquisition/development, culture and pedagogical strategies such as specially-designed academic instruction in English. The implementation of the CLAD credential (now institutionalized throughout the School of Teacher Education) began in 1992 with a pilot program for preparing university faculty to deliver the new CLAD curriculum, an experimental teacher preparation program involving a cohort block of student teachers, and a research study of the effectiveness of the reform effort. The pilot faculty attended a one-week institute to begin building increased knowledge in the areas of language, culture, bilingual models and ways to infuse related concepts and pedagogical strategies into methods courses. Faculty met regularly throughout the year to share insights and plan instruction.

In addition to exposure to the infused curriculum, all student teachers were placed for at least one semester with a master teacher who had obtained a language development specialist credential and were also placed in a classroom with a significant number of English learners. During the winter session, teacher candidates took classes in ESL and Bilingual Education from faculty outside the School of Teacher Education. The research study indicated that students in the experimental program were considerably better prepared to meet the challenge of diversity than members of a comparison group in a traditional program.

Intended Outcomes

This reform effort is designed to help meet the increased demand for teachers capable of providing equal access to the curriculum for culturally and linguistically diverse K-12 students. The reform involves all partners in teacher preparation including university faculty and supervisors, master teachers and student teachers.

Lessons Learned

The development and evaluation of teacher preparation programs designed to meet the needs of the rapidly increasing population of culturally and linguistically diverse students in our nation's schools is of paramount importance to the future. It is feasible to infuse relevant content into a year of professional teacher preparation and to help teacher candidates address the needs of diverse students. The change process is slow and difficult. University faculty require much time and interaction to come to terms with the meaning of a CLAD curricu-

lum and to be able to move toward a broad set of cross curricular goals for the program. Dialogue must be encouraged over long periods of time and in a variety of settings. More attention from the outset needs to be focused on the preparation of master teachers and university supervisors to bring supervision into alignment with the CLAD curriculum. Collaboration with other departments, such as Bilingual Education and Linguistics, which staff the language acquisition/development courses for teacher candidates as part of the CLAD program, is essential to successful reform.

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Salisbury State University/University of Maryland Eastern Shore

Salisbury, Maryland

Consolidated Teacher Education Programs

This initiative, promoted by the University of Maryland System Board of Regents, resulted in a former teachers college and an historically black institution cooperating in program offerings in ways that have never been done before; it is seen as a ground-breaking development. It is resulting in changes in programs within each institution and between institutions so that students have access to a much wider range of options both in curriculum and faculty and well as with student interactions.

At the directive of the two university vice presidents for academic affairs, a committee of 17 persons representing both institutions in teacher education met for intensive negotiating sessions to develop a plan for consolidating the two teacher education programs. Agreements were reached in several areas. Assumptions/Values is a broad statement recognizing the distinctiveness of the two universities, a commitment to efficiency expanded services, and shared values and mutual respect. Agreement was reached on program issues, such as discontinuing duplicative programs, assigning certain programs to each institution, and agreeing that new programs would be jointly developed and offered. There was an agreement to share resources, such as interlocking faculty, library holdings, educational technology, facilities, student support etc. Certain structural inhibitors, such as incongruent calendars, transportation of students, admission, registration, support services, and the like, were addressed.

Since the agreement in teacher education, similar agreements have been struck with other programs, a common calendar has been instituted, transportation has been provided, and there is a growing incidence of cross- institution registrations.

Intended Outcomes

The purpose of the agreement was to more effectively consolidate the teacher education programs between two state-supported universities residing 13 miles apart to avoid duplication, thus saving resources, and to enhance offerings for students in both institutions.

Lessons Learned

Institutional cultural diversity must be considered when anticipating such an initiative. Concerns, suspicions and threats must be dealt with openly; patience and understanding are

essential. Agreements must be crafted precisely and with care; they become the constitution for the future. Consolidation of programs between institutions is an unnatural act. Consolidation of this kind demands not only the support of the administration, but also its vigorous involvement and commitment.

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Teacher Recruitment of Elementary Minorities

This program is designed to recruit minority elementary students early in their school careers, when it is more probable they will consider a teaching career, a time when basic altruism is strongest.

The recruitment process seeks to bring minorities into teaching while they are still in elementary school. It is also designed to concomitantly raise the career expectation levels of at-risk minority children.

The process used is to organize a cohort (15-25) of minority children (mostly at-risk) and provide them with special experiences and services to accomplish the goals. In the early stages, education majors provide special tutoring; later, members of the cohort provide tutoring for younger students. Special events include visits to campuses, artistic events, bus trips to centers of interest (Baltimore, Philadelphia, museums, etc.) and special celebrations (graduation from middle school to high school).

There are now three cohorts functioning; the first one, now in its fourth year is fully intact, except for three students who moved out of state.

Intended Outcomes

The main purpose of this program is to increase the number of minority teachers. An equally important purpose was to identify and nurture at-risk minority students with the hope that they will aspire to higher expectations.

Lessons Learned

The model is extremely effective. While summative evaluation is not yet possible, formative evaluation is extremely positive. A major success factor was the full involvement of parents from the very beginning of the cohorts. Even so, each cohort needs a committed mentor on site. Students, of whatever background, respond positively to individual attention and academic progress is comfortably accompanied by social and values progress.

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Stephen F. Austin State University

Nacogdoches, Texas

Recruitment of Minority Students to Teacher Education

SFA is a regional university that prepares from 600 to 700 new teachers each year. In the past, a large majority of the teachers have been white females. At the same time, the population in this rural area is 30 percent African American, 15 percect Hispanic and 50 percent white. Community leaders and administrators seek teachers who represent their school population, and four years ago the university made a decision to institute major reforms to address the need.

The university established a collaborative relationship with five local and area school districts, the nearest community college, the Regional Education Service Center, and various community entities. The purpose of the collaboration is to totally restructure teacher preparation to improve the quality of teachers and thus increase student achievement K - 12. A major component in the restructuring effort is Recruitment of Minorities to Teacher Education. The recruitment program includes annual scholarships for 15 senior students who will study to become teachers, an ongoing support system for local and area teachers' aides who wish to become fully certified teachers, initiation of career education courses for future teachers at the middle and high school levels, and several other smaller related efforts. The program was designed in 1992 and initiated in 1993. Already the results include seven public school classes with a total of 56 enthusiastic teens planning to become teachers, 31 university students in the teacher scholarship program, and the first of two graduates returned to their communities as teachers. This initial success affirms the usefulness of the strategies employed and points to long term, dramatic change in the area teacher workforce into one that better mirrors the student population.

Intended Outcomes

The intended outcome of this reform effort is to increase the number of minority students seeking teacher certification, thus providing teachers for the local and regional area that reflect the population in K - 12 schools.

Lessons Learned

Changing the teacher workforce requires time, collaborative work, and financial resources. The most helpful partners have been public school curriculum specialists who were willing to risk establishing the "teaching as a career" classes. Equally as important have been the personnel officers who identified and supported the teachers' aides as they study to become fully certified. It was initially surprising that so few high school seniors consider teaching as a career. High achieving minority students tend to choose other careers, and big dollars are available to them from major universities. We have been delighted to find the fine pool of teachers' aides! These people are already committed to a career in education and their local communities. They simply need assistance to reach their career goals. They need encouragement, careful advising, some tutoring, assistance with scheduling classes around work responsibilities, and financial help for tuition and books. Schools and communities are desper-

ate for a teaching force that adequately represents their student population; they become excellent partners with any university program that produces quality teachers, especially minority teachers. The recruitment of minorities effort has value-added to university and the College of Education in the form of all the benefits that come from diversity. It has produced a satisfying win/win situation for SFA.

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University of Nebraska at Omaha

Omaha, Nebraska

Minority Intern Program

The Minority Intern Program is a partnership between the Omaha public schools and the College of Education at the University of Nebraska at Omaha. This program is designed to further develop an Omaha public school staff that reflects the racial diversity of its students. In addition, it exposes the minority interns to a quality educational experience. The interns gain valuable on-the-job experience by spending approximately 15-20 hours a week working closely with Omaha public school students under the direct supervision of classroom teachers. The interns receive a stipend of $2,000 per academic year for their participation in the program.

This program assists participants in developing the valuable skills needed to be an effective teacher and role model. The program takes interns right into the classroom, where they train alongside professional teachers while interacting with young people.

This is the 10th year of the program. Each year of the program has resulted in additional participants. Currently, there are 34 participants. To date, 33 minority interns have graduated from the program.

Intended Outcomes

The Minority Intern Program works with and through the Omaha public schools to further develop the staff to reflect the racial diversity of its students. The Minority Intern Program provides university students majoring in teacher education with opportunities to observe experienced educators in classrooms. Interns are assisted in developing effective teaching skills and techniques, making the transition from theory to practice more successful.

Lessons Learned

This program is a major component in the long-term multicultural plan of the College of Education. It has provided an increased pool of minority applicants for classroom teaching. Candidates who have participated in this program "hit the ground running" in the job market because of the many opportunities to observe, interact, and participate with experienced

educators. The program provides an excellent partnership between the public schools and teacher training institutions.

Efforts continue to refine the interview process and to further coordinate the classroom experiences with the intern placement.

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University of South Carolina-Spartanburg

Spartanburg, South Carolina

The Saturday Academy and the Jacobs Endowment

USCS is a state institution that supports diversity in its students, faculty and staff. Although the university has seen an increase in minority student enrollment and faculty/staff employment, teacher education has not seen a substantive increase in minority students indicating a desire to become teachers. In fact, a survey of 300 above-average students (minority) who were in 10th grade three years ago produced information that only 11 of them were even vaguely thinking of teaching as a career option. As a consequence, The Saturday Academy and The Jacobs Endowment were established for the purpose of addressing the problem. The Saturday Academy, a privately funded effort, selected 50 black male and female sixth graders in July of 1993 and began a program of summer classes and Saturday classes during fall and spring. Their progress has been significant and it is the project's objective to guide these children into teaching as a career. The academy will work with these children until they graduate from high school. The Jacobs Endowment was a $250,000 gift from a local businessman (since grown to $350,000) that will provide full scholarships to qualified minority students who will agree to become teachers in South Carolina for a period of at least four years after graduation.

Intended Outcomes

The purpose of these endeavors is to increase the number of minority teachers in South Carolina public schools, thus impacting diversity.

Lessons Learned

The students in The Saturday Academy are currently enthralled with the idea of becoming teachers. However, it is expected that a number of them will change their minds as they mature. However, the academy believes that it is taking the right approach to encouraging and preparing the students to select teaching as a career. The Jacobs Endowment underscores another issue. Students applying for the scholarships are often not among the top 25 percent of their respective graduating classes. USCS must develop an approach that appeals to students with better academic backgrounds. Faculty are currently working with admissions

staff to develop such an approach. At the same time, the university, through this program, will continue to improve the academic achievements of program participants.

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Western Washington University

Bellingham, Washington

Center for Educational Pluralism (CEP)

The rationale for establishment of the Center for Educational Pluralism (CEP) was driven by a commitment to improve the ability of teacher education graduates to teach a diverse population of students. The Woodring College of Education, therefore, sought to provide resources for students to develop ideas and competencies in teaching across a wide range of backgrounds and lifestyles. The Center for Educational Pluralism was developed as a result of the Woodring College of Education Plan for Diversity. Space was dedicated for a curriculum library with computer facilities. The room contains a wide variety of materials that represent the history, cultures, perspectives and lifestyles of students in the public schools today.

Teacher education students use the center to explore diversity issues and concepts through completion of four self-study "stations." Issues and information presented in the self-study units are designed to stimulate self-examination, debate and discussion in regular classes. Students respond in writing and through discussion groups to issues raised and readings contained in each station.

The center sponsors and organizes numerous presentations throughout the academic year, including regular video presentations and associated discussion sessions, panel presentations on current issues in multicultural education, and descriptions of newly available curriculum materials (books, videos, technology).

The center serves an important function in the training of future teachers. Students are exposed to a diverse array of perspectives and materials and activities. The ultimate function of the center is to assist in the production of new teachers who can include every child in meaningful and relevant instruction. The CEP is also a vehicle for activity among diverse faculty. The center brings together diverse faculty from the campus community as speakers, supporting collaborative efforts among faculty and providing role models for students of color.

Intended Outcomes

The CEP serves as an introduction to the concept of multicultural, non-biased instruction in the public schools, and provides a structure for students to complete state-mandated competencies in multicultural education for teacher education students. It also serves as an outreach vehicle for the college and the campus community, by scheduling presentations, videos, guest speakers and discussions on special topics. The CEP maintains a curriculum library that serves as an important resource for students and faculty to use in planning cur-

ricula, developing lessons, organizing class projects and assignments that have focus on inclusion and unbiased perspectives

Lessons Learned

Undergraduate students have widely divergent experiences and knowledge relevant to diversity in education. Some come with personal experience, others have never experienced bias. Topics of diversity and pluralism in education are quite emotional, and become quickly personalized. The experience of organizing the Multicultural Competency Requirement involved much more contention, frustration and anxiety than anticipated. Student concerns have been addressed by providing an orientation to the CEP and the requirements each quarter, adding discussion sessions as follow-up activities to the self-study units, and increasing the options for obtaining information (from reading only to include video, interviews, etc.)

Topics of diversity and pluralism are engaging for faculty and students alike. Although people do not always agree, the topics promoted at the center (cultural, racial, ethnic and linguistic diversity, disability and special needs, homosexuality, gender bias) engender lively and informative discussion in classes, hallways and faculty lounges. An immediate objective of the center is to involve College of Education faculty in the substantive content and curriculum development activities that are on-going.

Finally, the reform has reaffirmed the university's commitment to the value of CEP activities for students who will be leaving the university setting and moving into positions in the public schools. Raising their awareness about issues of educational pluralism is an exciting and fulfilling endeavor.

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For additional reforms relating to diversity, see University of Northern Iowa and University of Wisocnsin-Parkside in the following chapter.

3

The Changing Curriculum in Teacher Education

Arizona State University West

Phoenix, Arizona

QUEST: A Collaborative Undergraduate Teacher Education Program for Elementary and Special Education Majors

QUEST focuses on what and how pedagogical methods classes and special accommodations classes are taught. It also emphasizes the relationship between course work and internship experiences. QUEST is an experiential program by college of education faculty in language arts, mathematics, science, social studies and special education in partnership with the principals and teachers at two local elementary schools. University faculty conducted teacher education classes at two elementary schools in which all students in the classes conducted their internships. The following theoretical commitments were reflected in course syllabi, class activities, course assignments and evaluation processes: (a) integrated interdisciplinary instruction across content areas; (b) special education in the general education classroom through the adaptation, accommodation and modification of curriculum and instruction for elementary public school students with mild/moderate handicapping conditions; and (c) instruction in a public school setting to provide a realistic context for the university teacher preparation program.

Valuative information was collected from a variety of data sources (e.g., surveys from faculty, students, participating mentor teachers and university students' journal entries and thematic instructional units). Four collaborative activities emerged as important to the project: intern placements which required the cooperation of elementary and special education majors to develop and team teach; journal entries which were read by all the university professors; experience in language arts methods classes which required special education and elementary education university students to practice their teaming skills; and demonstrations by university professors of collaborative planning and team teaching. The "thematic unit assignment" accounted for one-third of each student's grade in each of the four classes. The unit development and implementation required collaboration with the mentor teachers, as well as observation and debriefings with the university professors during the delivery of the lessons. Evidence of adaptations for students with special needs was found at two major levels: in the lessons and instructional activities designed by the university students and in the lessons and activities designed by the university professors.

Intended Outcomes

The QUEST project explores methods to provide quality instruction for all students in general education settings so that teacher education candidates (both elementary education and special education majors) will be better prepared to collaborate and instruct children with special education needs.

Lessons Learned

Changes that are currently being considered as a result of the first two semesters of implementation include: (a) a strong recommendation that elementary teacher education majors enroll in the special education methods class; (b) assignment of teaching teams of interns (i.e., elementary and special education majors) to the same mentor teacher; and (c) refine-

ment to ensure a more explicit evaluation plan for the thematic unit to demonstrate measurement and evaluation of instruction.

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Black Hills State University

Spearfish, South Dakota

Integrated Elementary School Education Professional Semester

The integrated elementary school education professional semester presents instructional strategies and curriculum for teaching the core elementary school subjects of reading, language arts, mathematics, social studies, natural sciences, and technology. The course of study draws on a knowledge base which reflects the research and best practices in each of the core subjects. Students are provided with this information in the instructional resources used for the class, in classroom strategies modeled and taught, and in suggested references for further background knowledge. This curriculum provides an opportunity for students to develop a better understanding of the interrelationships among the disciplines and how to develop an integrated approach to teaching each discipline in a variety of classroom settings. They are encouraged to develop a habit of reflection in the decisions that they will make throughout the program. This includes developing teacher skills for analyzing and evaluating curriculum and instruction. Making decisions critically is an important component for learning. Thus, this course of study offers students a wide range of learning opportunities from which they can select and apply as most beneficial to their own professional career and to the development of their students.

Intended Outcomes

The program consolidates seven method courses into an integrated didactic and clinical experience for a cohort of undergraduate elementary school education majors. Students work cooperatively with their colleagues and instructors in developing integrated curriculum models and other models that provide more opportunity for relevance and learning.

Lessons Learned

In developing this program, several elements had to be considered. It is essential to identify a team of three or four people who share the same philosophy of teaching and who are able to work collaboratively. One must develop a mission statement with purpose and objectives. Teaching models and strategies to be taught in this integrated course of study must be carefully considered and an integrated syllabus for the whole course of study must be developed. The identification of cooperating teachers in the field and the provision of a series of in-services are essential steps, so that they understand the mission and purpose of the integrated professional semester. Finally, agreement is necessary on the evaluation and assessment process employed by the team and articulated to the students.

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Central Michigan University

Mt. Pleasant, Michigan

Middle Level Education Teacher Preparation for Michigan Schools in the Middle

This reform has four distinct components to address the needs of Michigan middle level educators, pre-service and in-service. First, Central Michigan University has established the first undergraduate middle level teacher preparation program in the state (there are 33 teacher education institutions) through a middle level education minor incorporated in the elementary certification program. CMU will finally be able to prepare some future teachers for the middle level in a state with only two levels of certification. All teachers are being certified for middle level, but, until this program, none have been specifically prepared. The second component addresses a graduate level program in middle level education which will finally prepare students for their middle level teaching positions instead of, as has been happening, learning while trying to teach at the middle level. This program will also contribute to the research base related to effective middle level strategies through its "thesis" component. Recognizing that many practicing middle level teachers need and want information, but do not seek university credit, the third component addresses results-oriented staff development. Various staff development efforts have been undertaken, including school visitations, conference support, planned workshops with follow-up activities, networking opportunities, and on-site research and support of reform efforts in Michigan middle level schools. The fourth component led Central Michigan University's Department of Teacher Education and Professional Development to establish the Center for Excellence In Middle Level Education, a resource center containing materials from throughout the United States related to middle level education and educational reform components. It contains print, video and technology materials in a model middle level school classroom environment. These materials can be borrowed by member schools ($50 a year membership fee) for staff development, classroom use, or review for more informed purchasing at the local school level where resource dollars are limited. The center also publishes the *Michigan Middle Level Advisor* newsletter for better communication to and among middle level schools.

Intended Outcomes

This reform effort is focused on designing and implementing a middle level education undergraduate teacher preparation program, designing and implementing a graduate level middle level education program, a comprehensive "results-oriented" in-service staff development program, and establishing the Center for Excellence in Middle Level Education, a major resource center for the state's middle level education community. This initiative has received significant external funding from the W.K. Kellogg Foundation.

Lessons Learned

The major thing learned with these efforts is that the need for these components in the Michigan middle level education community is very great. While there are some shining and well-kept secrets of model middle schools, at the other end of the spectrum, there are many examples of junior high education where the needs of preadolescents are not being met because the educators do not understand what those needs are. A year into the project, there was an increased demand for services by middle level educators trying to change their schools to more closely align their programs and practices to meet preadolescent needs. Too often,

schools do not have an understanding of the change process; there needs to be much more ongoing support of their efforts on-site. At the same time, there are schools where administrators and teachers need to know that there are resource people and materials available which can provide the final impetus to move their reform efforts forward. The university is working through a major state-wide reform effort to change the teacher certification code to elementary, middle and high school to more appropriately align certification and teacher preparation with existing K-12 student and educator needs.

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Central Missouri State University

Warrensburg, Missouri

Technology Integration in Teacher Education

The computer/technology program was cited by the Missouri Department of Elementary and Secondary Education as an exemplary technology program. It was recognized for its contributions to the mission of the university through course offerings, collaboration with other agencies, and cooperation with and service to the schools. Faculty members are developing expertise with a variety of instructional technologies and incorporating this technology into classroom instruction.

Also noted were the variety of software and equipment available in IBM and Apple-Macintosh platforms. The financial support and the cooperation of Apple, IBM, the university, and faculty also strengthens the program. Excellent technical support is available from a variety of sources.

Computer/technology programs are outcome-based in their approach to instruction using the Continuous Process Improvement approach to TQM. Authentic assessment is included through hands-on activities. The standards of NCATE and ISTE have been incorporated into the undergraduate program to prepare educators.

An introductory course has been instituted and refined to incorporate experiences that are deemed necessary for all teachers. The course includes not only operation but problem solving, data collection, information management, communications and decision-making. Productivity tools such as word processing, database, spread sheet, and print/graphics are included for professional and personal use. Knowledge of uses of hyper media, multimedia and telecommunications to support instruction is integrated into the course as well as hands-on operation. Searches and downloads from PBS electronic databases are also integrated. Experiences with IBM, Macintosh and Apple networks, hardware and software are included.

The remaining courses in the technology minor have been revised to provide more in-depth experiences with social and ethical concerns, impact on society and education, equity issues, and professional development. Additional experiences with problem-solving, application tools, information access/delivery tools, design/ production of instructional materials, and methodologies and field experiences are provided.

Curriculum revision is on-going with the further integration of technology into other teacher preparation courses such as the social studies for elementary majors incorporation of hyper media and databases. This course also includes telecommunications to Central Link at KMOS-ITS for CNN News downloads and lesson planning.

The minor includes experiences that are viewed as important for all teachers to have, specialty training in computer/technology literacy, and professional teaching preparation related to the use of computers and technology in instruction.

Intended Outcomes

It is essential that technology become an integral component of the educational process and thus a part of teacher preparation programs. The restructured curriculum reflects the university mission and is designed to empower educators and students to function effectively in a technological society.

Lessons Learned

In developing a computer/technology program for teachers, it was immediately evident that a better research base on effective uses of technology for instruction was needed. Currently, the research base is growing rapidly and should be helpful to those initiating such programs.

It is recommended that the faculty have the computer technology on their desk. Central was fortunate that its president provided the faculty who wanted computers with the one of their choice.

Campus networks for faculty and student communications and access to the Internet is essential. To develop student problem-solving skills, information access and delivery tools need to be in place. Students need the knowledge, skills and experience with these tools for today's job force.

A support center that provides training in computer/technology use is extremely important. Opportunities for faculty, staff and administration to be oriented to new technologies should be provided. Help with specific computing/technology tasks and support for instructional software development should be readily available. This support center should also be available to public school teachers and administrators.

Central is fortunate to have comprehensive planning, a clear mission statement, and effective leadership. Expertise in the technologies needs to be developed so that a vision of where the institution-college-departments want to go can evolve. Professional development opportunities and support can provide a base for this. Resources need to be reviewed and the budget reallocated to enable the attainment of the stated goals.

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College of Charleston

Charleston, South Carolina

Accelerated Schools Project: Teacher Preparation Emphasis

This project focuses on changing the curriculum of the teacher education program to meet the changing demands of teaching in a restructured school. The role of teacher in a restructured school is different than in a traditional school, and the college must change its curriculum accordingly. Teachers are being asked to work collaboratively with peers to make decisions, work more closely with parents (often culturally different than themselves), and make decisions about what, how and in what context their children learn. The curriculum to prepare novice teachers to work effectively, not only in the classroom but also in the school and in the community, must reflect those changes.

The college is using the Accelerated Schools Project (one of the most prominent school restructuring movements in the country) to ensure that it is providing graduates the skills and knowledge necessary to succeed in restructured schools. The project also provides student teachers an opportunity to learn in schools that are at the forefront of educational reform. The reform has two components. The first focuses on changing the curriculum in the teacher preparation program. The philosophy and process guiding the Accelerated Schools Project are adapted to create a vision of the ideal novice teacher, to take stock of what is currently being done to prepare novice teachers, to compare the vision and current practice and identify areas for change; and to design strategies to reform the curriculum in the direction of that vision. As this examination of the curriculum is occurring, student teachers are provided an opportunity to work in accelerated schools. This experience not only benefits the student teachers, but gives faculty an opportunity to test some ideas on curricular change.

Intended Outcomes

The intended outcome of this reform is to prepare novice teachers to work in restructured schools. The teacher preparation program will better prepare teachers to work in a democratically governed school; a culturally diverse setting; a school with high expectations for all children; and a school that encourages creativity, challenge and risk-taking in the classroom.

Lessons Learned

This reform effort began in August 1994, so the curriculum exploration process is incomplete. To date, the project has revealed that the ideal novice teacher is a person with a broad array of skills, dispositions and knowledge. Faculty also recognize (although there have been no formally conducted examinations of the current curriculum) that the curriculum needs to be re-focused to better prepare novice teachers to work in restructured schools and to work in culturally diverse settings. The student teaching component of the project has revealed that many of the students have a limited understanding of working in culturally diverse settings and of the skills needed to work collaboratively with peers to create school change.

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East Carolina University

Greenville, North Carolina

TEACHEAST

Profound changes in the American workplace, largely the result of the end of the Cold War with its attendant release of military personnel and highly skilled professionals in management and technologies, have created a work pool of unprecedented diversity and expertise; people with practical, cosmopolitan and often international perspectives. Those from this pool desiring to teach are just the right match for a student body whose future calls for entry into a workplace more highly demanding than ever before. Additionally, there are those who seek a career change or are ready to enter a new phase of work (having for example, raised their children or aspired to a more challenging kind of work). Finally, there are students unsure about what profession to enter, but who show an interest in education.

These nontraditional candidates are subject to recruitment by members of the School of Education, but are targeted by the TEACHEAST project. Major areas of recruitment are military bases, community colleges, the ECU campus, one private college that lacks a program in teacher education (plans are to provide certification to interested students), and such organizations as the North Carolina Association of Teacher Assistants and Troops for Teachers. It in also important to attract the attention of people from business, industry and the public at large. The diverse backgrounds and professional areas of those who respond are surprising—ministers, dentists and lawyers, for example. Consequently notices have been sent through radio and television and there have been descriptive and editorial columns in newspapers as well as a distribution of brochures throughout eastern North Carolina. The staff works cooperatively with support personnel on campus, with admissions, continuing education, career placement, financial aid, advisory committees and the Council of Teacher Education. In addition, every effort is made to ease the way into the program for students needing guidance in personal matters such as finances and child care, for entry into the program is often a leap into uncertainty.

Intended Outcomes

TEACHEAST emphasizes recruiting those who might never have entered the classroom — military and business professionals, skilled people from a variety of backgrounds, technicians, homemakers; in short, any persons who offer potential expertise and enthusiasm to teaching. They will join ranks with traditional students from the universities and community colleges to form a more heterogeneous pool of teachers.

Lessons Learned

Because TEACHEAST is a relatively new project (started January 1994) with some students studying at community colleges in preparation for advanced work at this university, the staff has difficulty keeping track of them. Nor has it found efficient means to follow on-campus progress unless students show up for academic counseling by an assigned advisor in the TEACHEAST office. So where there has been no difficulty recruiting nontraditional students (286 to date), tracking their successes and failure requires better means, methods and time. Work is now in progress to set up a data base that will give ready access to this information. Many of the older students report feeling a sense of dislocation among the majority of younger ones. Some need more flexible class schedules and most do need more than average advi-

sory time, especially in the early stages. Nontraditional students, therefore, create new challenges for the faculty, but they are healthy challenges. After a few months, nontraditional students seem to adjust and blend into the university landscape on their own. However, TEACHEAST needs to stand by and offer support and advice when it is requested.

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Eastern Illinois University

Charleston, Illinois

Alternate Secondary Education Program

This secondary program development was achieved in cooperation with the department of educational psychology and guidance, Charleston and Mattoon public schools, and several academic departments outside the College of Educational and Professional Studies (CEPS) and was eventually institutionalized as the Alternate Secondary Education Program (ASEP).

ASEP students start their field services in the public schools within the first week of their entry into the program, and continue work in the schools throughout the three semesters of their entire professional education. Students go to the schools to accomplish specific tasks as directed by the modules upon which they are working.

College of Education and Professional Studies staff members identified some 60 teaching behaviors and prepared Learning Activity Packages (called modules) of materials, activities and clinical experiences designed to prepare students for entry-level professional competence via closely supervised independent study. The behaviors and the accompanying modules can be categorized into four general areas: personal and interpersonal effectiveness; professional and community effectiveness; professional scholarship and cognitive structure; and pedagogical effectiveness.

Each ASEP module contains an on-campus, research-study component, a learning activity component, and a field-based clinical experience component. ASEP students are required to complete 26 prescribed modules plus 75 clock hours of elective modules selected by a study plan which they and their advisors believe can best aid them in their preparation for teaching.

The two local high schools, Charleston and Mattoon, have special contract arrangements with the CEPS which provide that each high school gives released time or special assignment to selected classroom teachers. These teachers serve as ASEP faculty team members active in planning, writing, advising and evaluating both on-going practices and student performances as do the university team members. These teachers also serve as liaisons within each building, assigning and supervising Eastern students in their public school activities.

Each university faculty team member can and does visit his/her students in the public schools, and has continued contact with the public school teachers on the team. Each team member is responsible for advisees, for instruction as a resource person for various learning modules, and for coordination of the field experiences for his/her advisees.

Intended Outcomes

The purpose of the program is to provide an improved, alternate delivery model for instruction in secondary education, designed to prepare students for entry level professional competence through closely supervised independent study and increased, fully integrated clinical experience components.

Lessons Learned

The flexibility of the ASEP program allows students, with the help of their advisors, to change, build and revise their programs continually, based on analysis of their growing understanding and greater knowledge of definition of needs. The heart of the program lies in the advisor-advisee relationship which is close and continuous throughout the student's professional education.

Student enrollment in ASEP is strictly voluntary. The program is competency based, highly individualized and flexible. As a result, only self-motivated, academically strong, adventuresome students tend to apply. The program maintains an average enrollment of 80 students.

Graduates of this program demonstrate particular strengths. They are independent workers, can receive a minimum amount of clear instructions and can then complete the job with good results and without undue delay. They are aware of the need for good interpersonal relationships with students and others and can practice many of the skills developed throughout the ASEP experience.

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Eastern Kentucky University

Richmond, Kentucky

Collaborative Reform Program

Kentucky's legislated reform in curriculum and governance is comprehensive. By 1996 all schools in the state must: (1) be governed by a site-based council; (2) have a non-graded primary program; (3) use authentic, continuous, performance assessment; (4) use portfolios, technology, multicultural education; and research-based methods; and (5) future teachers must meet new teacher standards. Collectively, these topics make up the content for the new teacher education program at Eastern.

The reform program at Eastern Kentucky University has one goal: to prepare pre- and in-service teachers for implementing all Kentucky reform practices. The method for achieving this goal is through involving all teacher education faculty collaboratively. A matrix was drawn showing which legislated reform practices are being covered in each course taken in the undergraduate program and a duplicate matrix was made for the graduate program.

State specified expectations for elementary, middle and secondary teachers (new teacher outcomes) were keyed into the program objectives and outcomes using portfolios, allowing

students to add further objectives of their choice. Rubrics are developed and used to gear program objectives to authentic assessment and performance activities. Currently, members of the faculty are studying ways to make the performance assessment reliable and valid.

Intended Outcomes

This program has three goals: (1) define the ideal teacher for carrying out all of Kentucky's reform practices, (2) make whatever changes are needed in Eastern's current teacher education program to produce the ideal pre-and in-service education reform teacher, and (3) involve all teacher education faculty in all stages.

Lessons Learned

Because all faculty have been involved throughout all phases of the restructuring process, faculty have developed a sense of ownership and enthusiasm for the new program. The total involvement has led to an unanticipated level of responsibility for the restructuring outcomes. The faculty has been willing to sacrifice even more than anticipated in cooperative activities.

Although there are areas of disagreement in the collaborative approach, and disagreement is considered undesirable, ironically, the disagreements have helped the faculty perceive issues more thoroughly.

A second lesson has been the discovery that although grant writings can expedite reaching goals, most goals can eventually be accomplished without them.

A third lesson has been the realization that meeting the challenges of reform and staying within the constraints of the university challenges the faculty to be its most creative in the use of time, talent and resources.

A fourth realization has been that total restructuring takes more time than usually anticipated. Therefore, one now-evident change would be to start the process even earlier.

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James Madison University

Harrisonburg, Virginia

Natural Sciences for Preservice Teachers: A Model Partnership

The project addressed the need for improved content preparation of teachers in the areas of science and math. The focus was on the natural science and math courses in the general education program because these courses dealt with the level of content most reflective of the subject matter of grades N,K-8. The project integrated one-credit pedagogy seminars with selected general education courses taken by all students in biology, geology and math. The seminars engaged students in constructing their own theories of learning and teaching; reflecting on their experiences as students, especially in these content courses; thinking about gender, racial and socio-economic biases present in schools with respect to instruction of science and math; and formulating instructional methods and alternative assessments.

Teams consisting of science professors, education professors and a fourth grade teacher assigned to the project by a local school district for a year designed the pedagogy seminars, delivered all the courses, and monitored the project. This team approach provided opportunities for all the faculty involved to learn from each other, resulting in secondary level changes. Members of the project team also provided consultation and inservice for other practicing teachers of the district.

Intended Outcomes

The primary objectives of the project were: to integrate general education science courses with science teaching methods courses for N,K-8 pre-service teachers, improving their science content preparation; to use cooperative, integrated planning between the College of Letters and Sciences and the College of Education and Psychology; to use cross-disciplinary (science and education) and cross-level (university faculty and N,K-8 faculty) teams; and to use innovative approaches to instruction and student assessment that compel students to reflect on the instructional process while acquiring the science content.

Lessons Learned

One of the primary findings was that the types of linkages needed among education and arts and sciences faculty working collaboratively to enhance pre-service teacher education must be built on an individual faculty basis. Once the faculty who were part of the project's teams began working together to plan curriculum and discuss the needs of pre-service and practicing N,K-8 teachers, they began to integrate their different perspectives into a whole, reflective of the nature of N,K-12 teaching. This also led to secondary changes within the project, as faculty began to consult each other on content and instructional methods for courses.

Another necessary factor for success that benefitted this project was that of administrative support. The deans from the College of Letters and Sciences and the College of Education and Psychology were actively involved in the initial conception of the project. The vice president of Academic Affairs also gave an initial funding request for the project the highest academic priority.

The biggest obstacle to overcome was time. This project offered an opportunity for faculty of the sciences, education and N,K-12 to spend time discussing and planning curriculum and learning experiences. It offered time for faculty to be in each other's classes and to have discussions about instructional methodology. This time is crucial to build the necessary collaborative connections needed for effective pre-service teacher preparation.

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Breaking the Mold in Teacher Education

The early childhood and middle education programs at the university were completely restructured to offer a seamless web of learning through carefully articulated skills and content in a spiral curricula format. The curricula reflects an efficient streamlining and realignment of program content to end the fragmentation and duplication that often characterizes pre-ser-

vice programs. It contains well developed content and skill strands in technology, parent and community partnerships, issues of multiculturalism and diversity, and classroom management. A portfolio tracking system for documenting and reporting student progress is an integral component that meshes well with the experiential emphasis of the program.

Delivery of instruction is in unique units of time and experience, rather than in the traditional credit-for-contact model, thereby providing for more flexible and relevant use of student time. Thus, the traditional three-credit, three-hour courses are replaced with more flexible block scheduling that is detached from credit values but linked with specific learning activities in a variety of formats in large and small group as well as individual efforts. The program as a whole carries a block of credits on a continuum of experiences offering greater content and skill development in a more flexible time frame, with increased interactions between student and faculty for dialogue, feedback and mentoring. Team teaching exposes students to a variety of perspectives and pedagogical approaches.

Intended Outcomes

In response to the mandated changes in higher education that address the issues of delivering content efficiently, serving an expanding student body with existing or minimal increases in resources, and creating programs that expeditiously offer excellence in education, as well as a commitment to enhancing the pre-service preparation of teachers, this project has redesigned, redefined and revitalized teacher preparation to fully mesh all of the vital information, skills and issues surrounding the field into a program that is an integrated, cohesive whole that breaks the traditional boundaries of time/effort relationship between students and faculty.

Lessons Learned

The major difficulty with this systems-level change project has been effecting change in the entire system in increments while maintaining the existing program. As with most change of this nature, one is not afforded the luxury of "closing down shop while you re-tool". This has placed a tremendous burden on the faculty, at one time requiring commitment and creativity to a program in which students are enrolled, while demanding time and energy to develop and implement a totally new concept of program for a new cohort of students. In the midst of this change process, the faculty have also had to address the need for their own continuing professional development in relation to program changes (e.g. the expertise needed to integrate technology not only into the program but their own teaching).

The opportunity for such sweeping systems level changes and the administrative support to seriously engage in this effort was key in motivating faculty to reconceptualize the programs. The administrative support from the vice president for academic affairs and the dean is a necessity. Another necessity was that the while the opportunity for reform was created externally, the true impetus for reform and its definition came from the faculty of the programs involved.

If this process were engaged again, it would be beneficial to work collaboratively as faculty in more fully detailing the nature of change and outlining the areas of likely impact. This should include any subsequent temporary effects on students and faculty as a means of anticipating the overload demand on all involved.

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Johnson State College

Johnson, Vermont

Middle Schools Incentive

Middle school students exhibit vast differences in physical, social, psychological and intellectual development, and any middle school reform program and any pre-service, middle school teacher education program needs to take these differences into account. Yet, as of 1988 and 1989, few teachers were trained at the middle school level. In 1991, the Vermont Middle Schools Task Force's Mission Statement included the provision of: student-responsive curriculum and pedagogy; success-oriented learning environments; innovative assessment of students and programs; coordination of education/health/social services; and home-school-community collaboration. In line with this mission statement, propositions have been advanced by middle school advocates. These include active learning approaches, a warm school climate, team planning, flexible scheduling, and a challenging, interdisciplinary curriculum which promotes critical thinking skills and integrates technology. Johnson State College applied for and received a Vermont pre-service program planning grant, which allows the college to move toward an innovative middle school pre-service program. The envisioned results included the establishment of a permanent working collaboration between the local middle school and the college, and an increased educational achievement and understanding for both middle school students and student teachers through an integrated, interdisciplinary curriculum and method.

Intended Outcomes

To institute a new teacher education program in middle grades education.

Lessons Learned

The project staff examined exemplary middle school programs, and developed a collaborative mission statement for our middle school program. In addition, in April of 1993 the staff developed a five-year plan for that middle school teacher education program. Core courses (such as Organization/Structure of the Middle School, Instruction/Curriculum in Middle School, and Nature/Needs of Young Adolescents) are under evaluation. Teacher Education Program Middle Grades Teaching Endorsement plans have been established for both the graduate and undergraduate level.

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Kean College of New Jersey

Union, New Jersey

Project TEEMS (Teaching Elementary Education Mathematics and Science)

Project TEEMS was developed when faculty from Mathematics, Science, and Instruction, Curriculum and Administration (ICA) Departments developed seven courses in collaboration with four elementary teachers from an urban multicultural district. These courses integrate the content of mathematics and science and the reforms in instructional strategies and methodologies of these fields. Courses are paired so that, for example, the liberal arts course, "Exploring Space and Time," and the ICA course, "Integrated Approaches to Teaching Mathematics and Science in the Elementary School," are offered together.

Students in the program take courses for three semesters and students teach in the last semester. Students also serve as tutors/mentors in the five weeks of Projects Adelante and Advance, designed as enrichment and early intervention programs for Latino and African-American students.

The faculty team consists of six faculty members from the liberal arts departments (mathematics, biology and geoscience) and education departments (mathematics, science and bilingual). The faculty team meets every Tuesday to plan the collaborative lessons, they work and teach as a team; and each mentor five students.

Intended Outcomes

Desired outcomes were to increase the mathematics and science knowledge of elementary school teachers and to model investigations in mathematics/science by engaging future teachers in mathematics/science activities in which they experience new approaches to content and methodology (hands-on, manipulatives, problem solving, critical thinking, etc.). The project sought to integrate mathematics and science by developing and teaching new collaborative courses (mathematics/science faculty and education faculty). It was designed to complement mathematics/science content with relevant methods applied in a mathematics/science methods course. Finally, it intended to focus on multicultural populations including students with limited English proficiency by including appropriate activities and theory.

Lessons Learned

The program started in 1993. Since then the challenges have been many. The project team has learned that prospective elementary school teachers need to have a strong background in math and science. Integrating math and science with new methodologies and approaches to teaching limited English-proficient students (LEP) requires time, energy, commitment, and a new way of looking at traditional disciplines. One of the main challenges has been diminishing the students' anxiety concerning the unusual structure of the courses and having a team of six faculty members. The project team is now looking at the pilot program to see what will be done differently when it is institutionalized.

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Millersville University of Pennsylvania

Millersville, Pennsylvania

Pedagogy Seminars

The pedagogy seminar is, in many ways, emblematic of the changing curriculum in teacher education in that it links content and method in a dynamic curricular experience. It brings future teachers to a first-hand appreciation of the kind of reflection and decision-making that is intrinsic to the process of teaching.

The pedagogy seminar is a one-credit, pass-fail, team-taught seminar attached to selected arts and sciences courses (primary courses). The arts and sciences instructor teaches the course as usual. A teacher education faculty member sits in on the primary course class session at least one hour per week. The primary course instructor and the pedagogy observer then meet, in seminar style, for one (additional) hour per week with the students in the primary course who have also registered for the seminar. The purpose of the seminar is to analyze the teaching of the primary course instructor, examining course content, organization, selected readings, pedagogical activities, assignments, and evaluation. The primary course becomes a kind of case study of "pedagogical content knowledge." Towards the end of the semester, the seminar shifts from an analytic mode to a constructive one and students are asked (through mini-lessons and other similar projects) to attempt their own transformation of subject matter for teaching a specified audience.

Pedagogy seminars have been available as an option for teacher education students for the past half dozen years and will be a requirement of the secondary education program beginning September 1995. Approximately 70 seminars involving well over 100 different faculty members have been offered since this innovation began.

Intended Outcomes

Pedagogy seminars have been designed to link content and method in the minds and actions of future teachers. This outcome is achieved by bringing liberal arts faculty, professional education faculty, and students into dialogue about teaching and learning in particular disciplines and in particular courses.

Lessons Learned

Over the past several years, faculty have learned that the pedagogy seminar is a very simple mechanism with far reaching implications for both students and faculty. In survey data, students report a greater appreciation for the complexities of teaching, understanding of the centrality of subject matter, and an intellectual shift from the perspective of student to the perspective of teacher. Moreover, students who participate in pedagogy seminars receive higher grades in the primary course than do students who do not participate in the seminar, controlling for pre-experience cumulative average. It appears that the seminar has the dual effect for students of enhancing their appreciation of teaching while also deepening their understanding of subject matter.

In the case of faculty members, there are two strong effects indicated through faculty interview transcripts as well as faculty behavior. Without exception, arts and sciences faculty who

participate in pedagogy seminars become a good deal more self-conscious about what they do in their teaching and why. Education faculty report an increase in subject-matter interest as well as a renewed appreciation of the perspective of learner. Both groups of faculty members report enhanced respect for each other and the challenges of their respective tasks in liberal arts and in professional education.

At this point, there is very little that the university would alter in regard to this particular innovation, except to make explicit the institutional commitment required to support this structural/ curricular innovation.

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Montana State University-Billings

Billings, Montana

Infusion of Preparation for Collaboration in Preservice/Inservice Education

Teachers no longer can work in isolation and be effective in providing appropriate educational programs for students. The curriculum in teacher education must add training in cooperative learning and teacher teaming to existing programs in pedagogy.

Two courses have been added to the undergraduate and graduate teacher education programs at MSU-Billings. The first is SPED 420-Individualization and Collaboration in Education. This course provides students with strategies for individualizing education for students with special educational needs. The course presents a collaborative approach to the education of these students including the use of cooperative learning strategies, a transdisciplinary approach to the provision of services, and collaboration between special and general education teachers. It is a required course for all general elementary and special education undergraduate majors.

The second course is SPED 562-Consultation and Collaboration in Special Education. This course provides students with the necessary information to collaborate and consult in integrated school systems. It has been an elective for all graduate programs in education and required in several special education graduate options.

Intended Outcomes

As inclusion of students with disabilities in general education classrooms becomes preferred practice in many schools across the nation, the need for teacher collaboration becomes more and more evident. The purpose of requiring undergraduate and graduate courses in collaboration is to better prepare teachers for the teamwork necessary across human services in today's complex society.

Lessons Learned

The undergraduate course has been difficult to schedule and difficult to plan. The elementary and special education programs are tightly structured and sequenced, so adding an addi-

tional course means that students may have one or several semesters when they enroll in 20+ semester hours. The individualization content seems to be redundant for special education majors, but necessary for general education students. The collaboration content is difficult for undergraduate students to comprehend due to their lack of an extensive experiential base in the field.

The graduate course has been attended by both education and human services majors. Demand for course content is so great that the university is currently revising its graduate programs in order to require the course in a College of Education and Human Services graduate core.

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Northwestern State University

Natchitoches, Louisiana

Integration of Technology into the Teaching/Learning Process

The five-year program of integrating technology into teacher education started with a campus-wide planning effort in 1989-90 school year. This initiative has resulted in a massive infusion of technology, the development of a new teacher education model, major changes and additions to the teacher education curriculum.

The integration of a technology plan used corporate grants, state grants and university funds to establish the Educational Technology Center as a hands-on training and demonstration site for new technologies. Desktop PCs, training and technical support were provided for all faculty/staff. Content/ skills areas of technology were identified and faculty were trained in each professional education course. Another aspect of the reform is the inclusion of technology in all program folios and course syllabi. The computer/technology literacy endorsement program was revised. New degrees, the MED and EDS, with an emphasis in educational technology have been introduced. Distributed networks were installed throughout the laboratory school; faculty were trained to use them. Network wiring of TEC classrooms were extended (also to the lab school) and media carts for mobile IBM/MAC projection stations were provided. Faculty were trained in computer-based audio graphics and television-based distance learning courses and a new multi-media networked lab updated program hardware and software. Statewide satellite courses and conferences modeling technology have been initiated.

Intended Outcomes

The goals of the program are to prepare education faculty to effectively use and model technology in the teaching/learning process and to educate pre-service and in-service teachers in the use of technology as a tool for teaching and learning.

Lessons Learned

Several things were learned through this program. It is essential to insure the faculty has input and ownership of the technology plan through professional development activities. Put

new technologies in the hands of the instructors and begin training as soon as the technologies are supportable. Develop teacher experts in all program areas. Spread the purchase of new technologies over a several year period so that they *can* be more easily absorbed into the program and to preclude massive obsolescence. Establish a technology committee with representatives of all program areas to insure curriculum integration of the competencies necessary to meet/exceed the International Society for Technology in Education Foundations Standards for teacher preparation programs. Incorporate technology into the program model, program folios, and course syllabi. Develop a technology literacy matrix to identify the introduction, reinforcement and mastery of specific technology skills. Encourage and model the use of alternative evaluation methods using portfolio projects. Work closely with cooperating lab and field experience teachers to insure students are exposed to best practice. Revise the technology competencies with hardware and software changes. Encourage teacher visits and technology exchanges within the university, with other universities and corporate partners. Support faculty professional membership in organizations which promote and encourage technology use.

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Oklahoma State Regents for Higher Education

Oklahoma City, Oklahoma

Systemwide Teacher Education Review

Areas of concern were developed from 23 recommendations for the enhancement of teacher preparation programs made to the Oklahoma State Regents for Higher Education by the Teacher Education External Program Review Team in December 1992.

Significant improvement has occurred on each campus and, cumulatively, systemwide within existing budgetary resources. For example, 42 teacher education programs have been officially deleted, 10 are being phased out, 16 program options have been discontinued and five are under review. As a result, 25 faculty positions and more than $1 million were gained for reallocation. The Council of Graduate Schools guidelines have been adopted and implemented at each institution. Other accomplishments include the elimination of faculty overloads except in infrequent and unusual circumstances, the analyzation of grade distributions in professional education courses and the subsequent establishment of procedures on each campus to bring them in line with university-wide distributions, and the review of professional education course syllabi for substance, content and duplication. Capital bonds monies have been used for upgrading technology for instructional purposes. The use of adjunct faculty has been reduced to a desirable level at all but two institutions and progress has been made at those. Higher education representatives are actively participating on statewide committees restructuring the teacher education curriculum and teacher certification and a statewide leadership conference has been conducted for deans/directors of teacher education.

Intended Outcomes

The intent of the teacher education reform initiative in Oklahoma was to upgrade the quality of teacher preparation throughout the state system to a nationally competitive level, as well as to develop and test a model for program enhancement that can be applied to other systemwide programs.

Lessons Learned

A comprehensive systemwide initiative can have a significant impact on selected program areas at both the institutional and state system levels. Program reviews conducted by consultants outside the state system reinforce systemwide and institutional strengths, as well as draw attention to neglected or overlooked areas. Once systemwide goals are established, they must be applied to individual institutions in a collaborative process between institutional and systemwide staff. Systemwide staff must have the credentials and experience to serve in a consultative role. Continuous follow-up on the process and the progress of reform must be maintained at each institution. Regular, structured visits to each campus are crucial. Systemwide initiative provides both motivation and support for local campus actions basic to reform. Finally, the vice president for academic affairs/provost is the key person on each campus for program reform and must be involved in both the ongoing assessment and enhancement process.

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Southern Illinois University at Carbondale

Carbondale, Illinois

Changes in TEP Curriculum

Changes have occurred in the Teacher Education Program (TEP) curriculum at SIUC. All majors in elementary education, secondary education, and K-12 programs must complete courses in Classroom Management and Discipline, Evaluation of Teaching and Learning, and Characteristics and Methods for Teaching Exceptional Children. The first two are each two semester hour courses. Classroom Management and Discipline is taken with a field experience that provides students with an opportunity to observe and experience first-hand good management practices and discipline experiences. Evaluation of teaching and learning provides students with knowledge of test and measurement principles, experience with using standardized tests, and development of testing and other evaluation mechanism for their area of teaching. It also introduces them to state staff development and evaluation procedures which they will encounter upon teaching in Illinois.

Characteristics and Methods for Teaching Exceptional Children prepares teachers for mainstreamed and inclusive classrooms. Clock hours with special needs children provide experiences which enhance the knowledge base of the courses.

The curriculum of the TEP program was changed in response to graduate evaluation feedback, changes in state standards, and response to the knowledge base needs of beginning teachers.

Intended Outcomes

The TEP curriculum was changed to provide better and more pertinent preparation for students in the TEP program.

Lessons Learned

Students recognize the need for these courses after completing them. Early in their programs, they still have difficulty understanding why so many education courses are required.

Originally, the content of the special education course was infused throughout several education courses. It is easier to document content and experiences in an established course.

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State University of New York, College at Cortland

Cortland, New York

Preparation of Resource Specialists for Inclusive Physical Education

For more than 40 years, institutions of higher education have been preparing adapted physical educators to teach children with disabilities. Nearly all of these programs have sought to prepare adapted physical educators to provide services through separate, segregated adapted physical education classes in which there is one adapted physical educator and one or more children with disabilities. Yet recently there has been a significant philosophical shift regarding the best setting for teaching children with disabilities. The emphasis is now on inclusion—the practice of educating a student with a disability, even a severe disability, in regular classes with typical peers in the neighborhood school, not as an occasional visitor, but as a full member of the class. Adapted physical educators, in order to be successful, must learn to become resource specialists who possess both the teacher and consultant skills necessary to support the regular physical educators in whose classes children with disabilities are now included.

Both the course content and field experiences of the master's degree program in Adapted Physical Education at SUNY College at Cortland were revised to develop resource specialist skills in addition to the adapted physical education skills normally taught. Students learn to advocate for the support systems that are vital to the success of teaching children with disabilities in regular physical education classes (e.g. assistance of paraprofessionals, peer tutors); to work collaboratively with regular physical educators, the child's family, other teachers, physical and occupational therapists, and administrators; and to provide training for regular physical educators and others in adapted physical education.

This project to prepare resource specialists in adapted physical education received invaluable assistance through a grant of nearly $200,000 over three years, 1991-1994, funded by the U.S. Department of Education, Office of Special Education Programs, Division of Personnel Preparation. It funded the full-time study of 18 graduate assistants (six per year). These graduate assistants are in addition to the 21 full-time and part-time graduate students (seven per year) enrolled in the master's degree program. The federal funds also provided release time for faculty to plan, implement, evaluate and revise the curricular change.

Intended Outcomes

The purpose of the reform was to make curricular changes in the master's degree preparation of adapted physical educators so they may serve as resource specialists facilitating the instruction of children with disabilities in regular physical education classes.

Lessons Learned

Surveys of past graduate assistants and their employers indicate curricular changes have resulted in the successful preparation of resource specialists who possess the skills needed to serve both as teachers and consultants in adapted physical education. Close to 90 percent of the program graduate assistants are currently employed teaching in physical education.

The resource specialist concept is especially suited to meeting the needs of children with disabilities in rural areas, where low incidence and long distances preclude adapted physical educators teaching children with disabilities directly. In the grant's rural component, resource specialists were educated with skills to address rural requirements. Two of the past graduate assistants are now employed as resource specialists in Alaska, where they are two of the six adapted physical educators in the entire state of Alaska.

One initial difficulty of the project was finding inclusive schools for resource specialist field experience placements. When this project began in 1991, there were only a few inclusive schools near Cortland College so many of the graduate assistants worked in these same, few schools. Since 1991, the reform of inclusive schooling has come to over half of the school districts near Cortland College, so there are now several excellent inclusive field experience placements available. While anticipating the need for resource specialists created initial difficulty in finding appropriate field experiences, it has ultimately been a real advantage for Cortland College. The college now has four years of experience preparing adapted physical educators with the resource specialist skills that schools are now requesting.

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State University of New York College at Fredonia

Fredonia, New York

The Changing Curriculum in Teacher Education (RARE Program)

The Reflective and Responsive Educator (RARE) program consists of five major components. First, all RARE participants complete a series of four field-based experiences. Each field-

based experience is taught in conjunction with a required education course to better establish the link between theory and practice. Each field experience is highly structured, well supervised, and carried out in conjunction with at least one other class member. RARE trainees move from providing non-instructional services to tutoring individuals with specific exceptionalities, to instructing small heterogeneous learning groups, to ultimately serving an entire class of youngsters. This gradual shifting of instructional responsibility facilitates RARE participants' acquisition and retention of specific teaching competencies, and makes them more secure with diverse types of learners. The second major program component is direct training in the use and evaluation of specific, validated teaching practices. They are instructed to use only those teaching methods and strategies that have the highest probability of being successful. The third component of the RARE program involves systematic training in collaborative decision making. Through the use of cohort learning groups, partner pairings for practice and field-based activities, small group cooperative learning sessions, and specific peer coaching assignments, pre-service teachers are taught how to work together effectively. The final two components of the RARE program are an objective evaluation system for assessing program outcomes, and a conceptual framework that prepares teachers as "reflective decision-makers" and "life-long learners." Program outcomes are assessed at both the trainee and pupil level using a performance-based outcome system.

Intended Outcomes

The Reflective and Responsive Educator program is designed to prepare pre-service educators to be instructionally diverse teachers. That is, the RARE program prepares prospective teachers to monitor their pupils' performance on an ongoing basis and to respond by selecting empirically validated instructional practices if and when a student falls below existing expectations.

Lessons Learned

Change, both in the public schools and at the university, is difficult but possible. However, it is a slow and painstaking process that is greatly influenced by both internal and external contingencies (e.g., public/ institutional policy, public support, arts and sciences faculty, and the daily realities of life in schools). An additional lesson has been that RARE students have noticed the changes that have been undertaken and that, for the most part, they support these efforts. Implementation efforts have also indicated, however, that widespread implementation of the program (i.e., across all pre-service educators) may not be a feasible and sustainable effort given existing institutional resources. Given an opportunity to do it differently, project staff would probably implement the RARE program with one cohort of teachers at a time, while simultaneously collecting more outcome-based data to evaluate the efficacy, efficiency and social acceptability of the model.

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State University of New York at New Paltz

New Patlz, New York

Master of Science in Teaching Degree Program

The New Paltz MST program reflects current changes in the curriculum in teacher education in three major ways. It includes focused, directed field components as part of the curricula of three required courses in the program; it includes a specific course in addressing educational and cultural diversity as well as strands in inclusion and multicultural education in all course curricula in the program; and there is a product portfolio assessment at the end of the program instead of the usual comprehensive examination.

These innovations address the needs of the students as they enter the teaching profession in that they provide contact with real schools early in the program and they address society's need for caring teachers who appreciate the rich diversity of the students and who have the skills to teach a diverse student population

The MST program provides the opportunity to change careers and enter the teaching profession to students who would not be able to enroll in MST or MAT program that have year-long internships at Holmes Group schools and other institutions. The MST is a coherent program of courses, beginning with an introductory course in assessment and curriculum planning, which is the first course with a field component. Other initial methods courses include a course in fundamentals of reading instruction, elementary science methods, and elementary social studies methods. Students may take a full-time or part-time course load depending on their individual needs.

The MST program is centered around themes of diversity, learner-centered curriculum, assessment, instruction, and school change. These themes run throughout the foundations and methods courses of the program. The capstone courses in the MST are the two courses in child development and social context. These courses both contain a field experience of at least six hours in a public school setting. Students complete a child study in the first course and an action research study in the second. Projects from these two courses and from the Assessment and Curriculum Planning course form the basis for the portfolio, which also includes a written philosophy of education and work chosen by the student.

Intended Outcomes

The MST program was designed to provide adult students who are either changing careers or choosing elementary school teaching after a liberal arts undergraduate education with a comprehensive, high quality induction into the teaching profession. The MST is a cohesive program that reflects the most recent research and curriculum trends in education.

Lessons Learned

The project demonstrates that it is possible to provide a high-quality program for non-traditional students, who are motivated and committed to teaching as a profession, without compromising standards of academic or professional quality. The MST students are an integral part of the departmental graduate courses and provide a valuable new perspective for our other graduate students, all of whom are certified teachers. The program reflects as much of

the most current research as possible without marginalizing students who cannot participate in full-time internships because they are not financially able to leave paid work for one year.

In the future, the methods courses will be more closely connected to the field. This may be accomplished by having more practicing teachers serve as clinical faculty in the methods courses. They could invite students to their classes and even on field trips. This was one of the most successful aspects of the Child, Family, School II course this past fall. The course was team taught by the MST director and a practicing middle school principal. When the sixth graders in the middle school went on a three-day outdoor education field trip to an environmental education center, all the MST students who were able to attend went along as chaperons and observers. This helped them to acquire real experience with students in authentic situations and it served as the basis for several action research projects. More such experiences would be beneficial.

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State University of New York College at Potsdam

Potsdam, New York

Cluster Courses: Integrating Collaborative Alternatives to Methods Courses

Traditionally, methods courses have been offered as a single course by a single professor and the student could enroll in any methods course in any order once admitted to this university's program. With the creation of cluster courses, two or three methods courses are combined in an interdisciplinary manner and the professors teach each cluster course with each other at the university level and with their colleagues in the public school. All of the "hands-on" field experiences take place in the public schools under the supervision of the professors and the public school teachers, ensuring professional development in a realistic and unique experience.

The clusters are sequential and are built on the concept that faculty work together to integrate the content and provide team-teaching to ensure future teachers of a meaningful learning experience.

Intended Outcomes

Cluster courses were designed to provide unique, integrative and collaborative alternatives for field experiences when education students enrolled in methods courses.

Lessons Learned

The reform team learned that the collaboration with the public school teachers has provided all the instructors as well as the students an opportunity to experience aspects of teaching/learning that are not normally inculcated in the traditional approach. Not only did the interdisciplinary approach in clustering provide everyone with new knowledge about how content areas are interrelated, but the students could experience for themselves how the theory is applied in practice in the actual classroom.

As a result, a video has been produced in which key players involved in the cluster courses share their learning experiences with others who may be interested in pursuing such a program.

For the cluster courses to provide maximum opportunities for learning, the pre-planning stages must identify the fact that much of the process that transpires, i.e., planning, teaching, transportation, scheduling, etc., will have to evolve to some degree. In this respect, confidence was gained about the direction this major reform has taken.

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University of North Carolina-Greensboro

Greensboro, North Carolina

The Teachers Academy: A Structure to Strengthen a University-Wide Approach to Teacher Education

In his recent work, Teachers for Our Nation's Schools, John Goodlad suggests that restructuring teacher education and reforming our schools must occur simultaneously. He calls for a new structure for teacher education, a "center of pedagogy committed solely to advancing the art and science of teaching and immersing educators in it . . ." Following Goodlad's advice, the University of North Carolina-Greensboro (UNCG), in creating the Teachers Academy and in expanding the on-going collaborative efforts with area school districts, is striving to operationalize Goodlad's call for the simultaneous reform of teacher education and our schools.

At UNCG, programs leading to teacher licensure are housed in the College of Arts and Sciences, in other professional schools (except nursing), as well as in the School of Education. While there are strengths that occur as a result of such diversity, the lack of a unified structure results in fragmentation of programs and makes the coordination of curricular changes, certification requirements, and clinical placements much more difficult. It is very difficult to develop a sense of community and purpose among all faculty and students involved in professional education. It is this problem of community that the Teachers Academy has been created to address.

The Teachers Academy replaces and expands the activities formerly performed by a Teacher Education Cabinet. Through its Executive Cabinet, Council of Program Coordinators (comprised of faculty coordinators of our 40 plus programs), Faculty Assembly (comprised of all faculty involved in licensure programs across the university), and four standing committees, the Teachers Academy oversees and coordinates UNCG teacher education programs. In addition to reviewing curriculum proposals and focusing on policy issues, the Teachers Academy sponsors faculty and student development activities throughout the year. Included among these is an annual conference on teaching and teacher education and special projects on multiculturalism and diversity.

Intended Outcomes

The Teachers Academy is designed to strengthen UNCG's university-wide approach to the education of teachers and other school personnel. Its primary purpose is to develop a sense of community among all university faculty and students involved in professional education. The academy serves as a vehicle for developing a common language and a shared vision between the arts, sciences and professional faculty on campus.

Lessons Learned

One lesson has become crystal clear during the first year and a half of the Teachers Academy's existence. Building a sense of community takes time and patient, reasoned discussion. The key to continuous improvement will be the commitment by university faculty, university students, and public school personnel to participate in the academy's activities. While faculty have performed admirably as members of the four standing committees, faculty as a whole have not participated in the activities of the academy as enthusiastically as had been hoped. The big events, such as the annual conference, are well attended, but regular faculty assemblies are not well attended. The project is rowing against a current in which faculty efforts and allegiance is departmentally bound.

During the inaugural year of the Teachers Academy, much time and energy focused on establishing the four standing committees and in electing a chair of the Teachers Academy Faculty Assembly. Not enough attention was given to developing the Council of Program Coordinators into a major forum for coordinating teacher education activities across the university. As the university prepares for NCATE Continuing Accreditation Process, one goal is to energize the talents that comprise the Council of Program Coordinators.

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University of Northern Iowa

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The Changing Curriculum in Teacher Education

The curriculum for student teachers has not changed as quickly as it should to accommodate technology. This project will bring technology to the classroom via the student teacher. Student teachers must have both the technology and the leeway to use it with students to really understand the possibilities.

Each of the seven student teachers in a supervision group checked out a PowerBook for his or her exclusive use during student teaching. Seminars on the basic use and operation of the computer, as well as the application of technology into the classroom, were held with these seven students. Not only were students to use the computer for journals, reflections and lesson plans, but classroom applications were expected and reflected upon.

At the weekly seminars, students brought their PowerBooks. Three basic concepts of word processing, data base and spreadsheets were reviewed, and appropriate classroom software was demonstrated. Student teachers were given technical support and guidance in the application in their classrooms. Seminars included technology as a basic concept.

Intended Outcomes

Too often, teachers expecting student teachers from the universities to be well versed in the use of technology in the classroom, find that although the students are able to use word processors for their own work, they are unable to translate that into technology in their teaching. The intent of the "PowerBooks for Student Teachers" project was to integrate the use of computer technology into the classroom during the student teaching experience.

Lessons learned:

The students in this pilot study were overwhelmingly attached to their computers at the end of the 10 weeks. The primary use was word processing. Student teachers have responsibility for many documents; all of the seven student teachers used the computer for their paperwork. The result was that in this group, lesson plan development was accelerated, reflections and journal entries longer and more elaborative, action research included more sophisticated data analysis including charts, and classroom materials were more polished and professional.

Five of the seven students brought technology to the students in their classroom. One student had math classes develop HyperCard stacks to explain fractions in their world. One student's class collected sample data and used the spreadsheet to create graphs. Two students had children type stories. Physical education students wrote fitness goals and kept track of their progress.

The classroom applications need to be nourished and supported, as student teachers are often going into classrooms with little or no technology. The university has an obligation to lead in the area of technology in the classroom, and student teachers with PowerBooks can be a major force in making this happen.

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University of Texas at San Antonio

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Interdisciplinary Studies Degree and Certification Program (IDS)

The Interdisciplinary Studies Degree and Certification Program (IDS) has made a major change in the curriculum for elementary teacher education, as the faculty, faced with state government legislation, sought to create a substantive, challenging, and meaningful undergraduate degree program to prepare teachers for the lower schools who are well informed and self-directed, life-long learners.

IDS has four components: a university core, a major in interdisciplinary studies, a discipline-specific area of specialization, and a professional education sequence. Courses in the major develop students' understanding of conceptual interrelationships among the sciences, mathematics, the arts, and the humanities. Students also study and apply the modes of inquiry that are unique to the natural sciences and mathematics, the social sciences, and the arts and humanities. They explore those aspects of critical and creative thinking that are common to all fields of study, and the influences of content and context on inquiries in each.

Professional studies build upon the interdisciplinary qualities of the IDS major to prepare students for thematic interdisciplinary teaching, using varied instructional models to support children's conceptual, intellectual and affective growth. The main program goal is to develop teachers as self-directed learners who understand their own thinking and learning processes and can describe, explain and modify them. The rationale is that teachers with these abilities will work to develop the same abilities in their students.

Intended Outcomes

The Interdisciplinary Studies Degree and Certification Program was established in response to Texas state legislation which eliminated undergraduate degrees in education. The IDS program is designed to prepare elementary teachers who have a breadth of knowledge and understanding of interrelationships among traditional disciplines of study, are conversant with different ways of knowing, can model diverse modes of inquiry, and can guide children's interdisciplinary inquiries.

Lessons Learned

The IDS program provides for the substantive academic preparation of elementary teachers in the social sciences, the humanities, and ways of knowing. IDS students are well prepared to understand and apply to their teaching the universal principles of human experience which are derived from their studies in the humanities and the social sciences. As they move through the program, IDS students become increasingly capable of self- directed critical and reflective inquiry. The program encourages continuing collaboration of university and community college faculty for teacher education and has increased interaction between education and faculty from other disciplines. The program has been the impetus for faculty joint appointments in education and other academic divisions, and the appointment of faculty who are dedicated, by assignment, to the IDS program.

The IDS program is not yet satisfied with its ability to prepare students to guide children's learning in mathematics and the natural sciences. A new area of specialization in advanced interdisciplinary studies is proposed to address this limitation.

Insufficient resources and incentives have been available for faculty development in teaching and the use of instructional technology. Planning is underway to enhance faculty development.

In hindsight, it was found that the program needed a clearer organizational structure; this has now been accomplished. Another need which the program staff is attempting to meet is an accurate tracking system to monitor the progress of IDS majors on entry, during and after completion of the program.

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Western Carolina University

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Using Portfolios As a Framework to Restructure a Graduate Program

Curriculum in teacher education, as in other areas of education, is exploring alternative ways to structure learning experiences which allow students to be creative when working on real problems. By using a portfolio model of work and evaluation, this program supplies a framework in which students address authentic problems and gain confidence in developing and implementing new approaches to instruction and educational practice.

In this graduate program in special education, the university replaced its final comprehensive exam with a requirement that students present a portfolio documenting competency in eight areas. Since there are no prescriptive guidelines for how each competency area must be addressed, each student's portfolio reflects his or her individual work and application of ideas. Faculty structure the work through the use of project proposals in which students, with the help of faculty, develop a plan for implementing an idea or instructional strategy and for evaluating their project.

In their projects, students apply information from their university classes to real issues in their schools and communities. Because the projects address real and immediate concerns in their schools, students must develop useful and relevant solutions to real problems. Consequently, the projects in the portfolio must document the student's ability to analyze problems, develop new approaches, and evaluate their effectiveness.

Evaluation of portfolios is both formative and summative. Students evaluate their projects based on criteria they have developed jointly with faculty. In addition to evaluating their projects, students evaluate how well they address the eight competency areas throughout their program as the portfolio is developing and in their final submission. At the end of the student's program, faculty complete a summative evaluation which includes a rating of each competency area by two faculty and one outside special education professional.

Intended Outcomes

The graduate program in behavior disorders uses a portfolio model of work and evaluation which requires demonstration of competency in eight areas. The major goal of the reform was to ensure that graduate students can apply information and address real problems in schools and communities.

Lessons Learned

The most important lesson is that students are eager to be more creative and more professional in their work. The projects which they have developed and implemented are innovative and relevant to their lives and to their professions. For faculty, it is exciting and satisfying to provide the structure and assistance which help students implement their own ideas based

on current knowledge. Faculty members find themselves working with students as colleagues and professionals rather than training them in the latest technical procedure.

Faculty also have found that portfolios met the primary goal for students in that at the end of their program, they will have developed new skills which are being used in their classrooms. Unlike reading final written comprehensive exams, faculty can see demonstrations of the students' teaching and their ability to solve problems.

An unanticipated benefit is that, because students' work is built on professional concerns and current school dilemmas, there is usually a real audience interested in what they have done. Students have been involved in presentations, workshops and professional writing in ways that they never were prior to adopting this model.

Another important advantage to using a portfolio is that the development is ongoing and requires faculty to continually interact with each student. Also, it is easy to adjust projects and portfolios to a wide range of student experiences and ability. In this program, first year graduate students who have never held a job and teachers who have spent 20 years in the classroom are enrolled. Portfolio projects can accommodate these wide differences and allow students to work at a meaningful level.

All the problems with portfolios have not been solved. Evaluation of projects and the total portfolio is subjective. Also, working with students on projects takes more faculty time than traditional course assignments. However, the work is more interesting and sometimes leads to professional development or presentations for the faculty member as well.

The most difficult problem has been devising strategies to have full-time students involved enough in schools so that they are able to develop meaningful projects. Close ties are being developed with a number of local schools, but a satisfactory solution to this problem has not been fully achieved.

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North Carolina Teaching Fellows Program

The North Carolina Teaching Fellows Program provides an enhanced curriculum which supplements the regular teacher education program by integrating learning in the classroom and experiential learning outside of the classroom. Students capitalize on their unique interests and abilities to discover creative solutions to the challenges of improving public education today.

In this program, Fellows attend weekly seminars designed to address issues of importance in public education. Experts present topics on issues such as school violence, technology, inclusion, site-based management, child abuse and cultural diversity, which are unavailable through the regular teacher education program.

Teaching Fellows required service projects include tutoring at-risk students in collaboration with local public schools. This provides an awareness of some of the current problems experienced by this population, as well as assistance in meeting class assignments for the student being tutored. Teaching Fellows who are exposed to this special population early can search for ways to meet their needs and make teacher education preparation more relevant.

The mentoring component of the Teaching Fellows Program is critical in building professional rapport and development for faculty and students alike. Students develop a relationship with an individual whom they consider to be a personal and professional role model. Together with their mentor, students explore, in-depth, an educational topic of interest to both parties and present their findings with assistance from their mentor.

Experiential learning through travel to philosophically diverse schools helps prepare Fellows for the opportunities available to them, as well as broadens their understanding of multicultural issues. An international travel experience enhances the students' understanding of global issues and its place in society today.

Intended Outcomes

The Teaching Fellows Program seeks to provide opportunities and experiences that encourage the development of outstanding leaders and inviting, reflective decision-makers to serve the public schools of North Carolina. Closely aligned to this goal is a strong need to improve the image of the teaching profession and the quality of public education by providing an enhanced curriculum which integrates in-classroom and out-of-class learning.

Lessons Learned

As a result of their exposure to a variety of issues and ideas through seminars, presentations, travel and personal experience, the Teaching Fellows are better equipped to handle their own classrooms. The stereotypical idealism of the novice teacher is replaced with a more worldly awareness and a determined motivation to create change for better using the ideas and strategies to which they have been exposed.

The international travel experience gives them a new sense of self and of their role in leading others and a desire to share their learning with others. The local field trips help expand their knowledge of teaching models and learning philosophies so that they might choose the most appropriate ones for their classrooms/students.

The mentoring project establishes a collegial relationship between student and faculty member that facilitates the student's change to becoming a teacher. Creating a research project with the faculty member, rather than for a class assignment, helps facilitate the change.

As an innovative teacher education reform established in 1986, the North Carolina Teaching Fellows Program is the most ambitious scholarship program for preparing teachers in the state to date. The $20,000 incentive awarded to Teaching Fellows underscores the state's commitment to the training of superior teachers. Although funding continues to exist as a problem for offering enhanced curriculum opportunities to regular teacher education students, a goal of this program is to expand the benefits to non-teaching Teaching Fellows where possible.

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Western Illinois University

Macomb, Illinois

The CommTech Curriculum Integration Project

A major goal of the Illinois 2000 plan states "All Illinois public school students will attend schools which effectively use technology as a resource to support student learning and improve operational efficiency." To accomplish this goal, teacher preparation programs must integrate computers, video, multimedia and telecommunications technologies into the curriculum. The premise must be accepted that the time has passed when the teacher is the sole disseminator of information and the student's role is to be a passive recipient of knowledge. To be successful in improving education, teachers must empower students to be responsible for their own learning by teaching them new approaches to acquiring knowledge that optimize new technologies and informational tools and by providing instructional resources beyond textbooks to, instead, expand students' opportunities to acquire new knowledge and information.

The college has created a distance learning linkage, using two-way compressed TV technology, with Springfield Public School District, which is located 90 miles south of the university campus. The linkage is used much like a Professional Development School partnership for college professors to collaborate with teachers and administrators at the K-12 setting.

During the past 18 months, college professors and K-12 educators have worked together to identify technology competencies for students in the teacher education program. As a result, competencies in five core areas have been identified (interactive multimedia, distance learning, instructional video, telecommunications/Internet, and computers). In addition, over 20 courses have either been redesigned or are undergoing revision to infuse aspects of the five core (identified in the previous sentence).

Finally, through reallocation of appropriated funds and from external grants, the college has expended over $1 million to establish a technologically rich teaching/learning environment for faculty and students. Efforts include upgrading existing computer facilities to include multimedia stations for students to preview CD-ROM courseware; creation of nine electronic classrooms, equipped with a variety of advanced technologies for interactive teaching; establishment of an interactive multimedia lab housing 11 Macintosh Power PC machines with CD-ROM drives, laserdisc players, TV monitors, scanners, a CD-ROM "press," and other peripherals for interactive multimedia instruction; and establishment of an instructional video lab which houses digital video camcorders, available for student check-out, and advanced digital editing equipment for student production of educational and/or training videotapes.

Intended Outcomes

Students in the teacher education program will be given a broad exposure to today's advanced technologies, including opportunity for extensive "hands on" experience working with computers, interactive multimedia, distance learning, instructional video, and telecommunications. Furthermore, prospective teachers will study under professors who teach in a technologically rich teaching/learning environment and model for students the proper use of technology in instruction.

Lessons Learned

When sought from the beginning, faculty input and support helped ensure the success of this project. Curriculum revision is an ongoing and a constant "fine tuning" process. Faculty release time from teaching duties to rewrite/redesign existing courses to reflect an infusion of technology is essential. Further, faculty must be provided training and support to integrate new technologies into their own teaching if they are expected to model effective teaching with technology to students. This includes purchase of state-of-the-art equipment in faculty offices and provision of a facility where faculty can develop instructional materials using interactive multimedia and other formats. Support for faculty must also be provided in terms of instructional design and technical support. Personnel dollars to hire a full-time instructional developer, as well as additional technical staff, to maintain and trouble shoot the technical equipment in each of the labs (computer lab, interactive multimedia lab, instructional video lab) and the distance learning network. Technology improvements are occurring so rapidly that updating equipment requires immediate ongoing curricular changes.

In the future, physical plant changes which are required to upgrade facilities and establish new labs would be enhanced by early planning. Hence, inclusion of physical plant personnel early in the planning process for establishment of laboratory and facility changes is required. Due to the complexity of integrating a variety of technologies into the curriculum, non-education personnel, such as technical engineers, must be included as members of the reform team.

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Western Kentucky University

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Western Kentucky University's Early Elementary "Block" Approach

The Kentucky Education Reform Act of 1990 required all elementary schools to develop and adopt an Ungraded Early Primary Program that involved all students in kindergarten through grade three. All primary programs were to adopt programs of continuous (non-graded) progress. All primary programs were to include six critical attributes: developmentally appropriate practices; multi-age, multi-ability classrooms; authentic assessment and qualitative reporting methods; professional teamwork; parental involvement; and continuous progress. The new state-mandated paradigm for the Primary Program called for teacher graduates who could

perform in a restructured school and facilitate the development of student performances on Kentucky's six new Learning Goals and New Teacher Professional Standards.

During the summer of 1992, the WKU faculty responsible for the preparation of teacher candidates at the early primary level integrated five methods courses into a 15-semester hour block developed around the critical attributes of the state's new Primary Program.

A unified effort was made by the instructional team to model the concepts and skills taught. A special emphasis was placed on collaborative teaching and cooperative learning experiences. Students' learning experiences were focused around "authentic teaching tasks" as presented in the Kentucky Educational Reform Act materials.

Field experiences became a much more significant part of the teacher candidate program, and all participants were assigned to a primary classroom the third week of the semester. They spend five day days assisting the classroom teacher. During the 14th and 15th week of the semester, the pre-service teachers return to the same classroom. Summative assessment of the teacher candidate's performance is based on a combination of holistic scoring procedures and use of performance criteria for specific methods class requirements as outlined in the ELED *Professional Block Handbook*, which was assembled by the instructional faculty. The teacher candidates received supervision and coaching from the university teaching team, classroom teachers, and school principals.

Intended Outcomes

The reform intends to provide pre-service early elementary teacher candidates with an integrated model of curriculum by combining five methods courses (advanced reading, social studies, mathematics, natural science and early childhood education). Further, university faculty who teach the methods courses will form a collaborative/integrated teaching team and model for students concepts and skill taught. A special emphasis is given to designing student experiences around authentic teaching tasks.

Lessons Learned

Since the initiation of this program as a single group experiment during the fall semester of 1992, the Early Primary School Professional Block has expanded to include the total teacher preparation component (including the Summer Session) of the early primary program at WKU. This expansion has necessitated the formation of two instructional teams with some over-lap of teaching and supervision assignments.

The teacher education faculty has experienced a process of growth and renewal. The processes involved in the block program have facilitated meaningful collaboration and productive interaction between instructional personnel and the students. The concept of a family instructional unit encouraged interdependence from all members of the instructional team.

The program is flexible and has gone through many "course corrections," many of which were based on feedback from the participants. As a unit, the faculty continues to revise and improve the "Block Approach." At the end of each semester, successes are reviewed and plans are made for improvement.

The reform process taught the faculty some things. Before beginning, a clear vision statement which is agreed upon by all participating faculty should be written. All professors involved must be flexible with scheduling of time, course content, teaming, etc. All faculty must be committed to weekly planning time and being in the cooperating schools every day students are involved in field work. Teaching an integrated curriculum approach is difficult, but well worth the extra effort and time commitment. Student evaluations and feedback as well as the improved faculty collaboration and morale testify to this.

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The Clinical Dimensions of Teacher Education

Arizona State University West

Phoenix, Arizona

MUSE: Multicultural Urban School Experience

MUSE has implications for curricular reform in methods courses and clinical experiences. MUSE students, upon completion of the semester, are able to compare urban and non-urban schools, provide instruction that is sensitive to the distinctiveness of the students in multicultural environments, provide teacher education students with access to support services outside the classroom, and become more confident in a multicultural urban setting.

Undergraduate secondary education majors are provided university teacher education classes on the campus of a local urban high school. Courses include principles and applications of effective instruction, assessment and evaluation in education, and reading in the content areas. The secondary education undergraduate students are assigned mentor teachers in their respective areas of academic specialization. These mentor teachers and university faculty teach the pedagogy classes. The university faculty participate in observing and coaching the interns in the mentor teachers' classrooms. Evaluative information is collected from a variety of data sources (e.g., surveys from faculty, students and participating mentor teachers as well as university students' journal entries and thematic instructional units).

Intended Outcomes

MUSE goals are to enable interaction between students and mentor teachers in a multicultural, urban school setting; to integrate field experiences in a natural classroom setting with university teacher education course work; to model instruction in urban classroom settings; to collaborate with urban school faculty and staff in program development; and to involve the community in the work of the ASU West College of Education.

Lessons Learned

Evaluations reveal that the project has been highly regarded by participants. However, the first three semesters of implementation reveal the following challenges. First, both the participating university faculty and the mentor teachers have had to balance competing demands. For example, many public school reform activities are time consuming and require the mentor teacher's attention. Second, there are typically too many undergraduate students who need to be placed with social studies mentors and too few who need to be placed with life sciences or mathematics mentors. Third, there is a great demand for undergraduate secondary education majors who are bilingual.

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California State University, Fresno

Fresno, California

Senior Project for Future Elementary Teachers

The rationale for establishing the Liberal Studies Senior Project is based on providing assistance to schools that have large numbers of "at risk" children, while also allowing potential teacher education candidates an opportunity for understanding the diversity in socioeconomic, multicultural and learning environments that exist in the inner city schools. In establishing the Senior Project, the university/school personnel felt that college students would have a positive effect on the self-esteem and confidence of certain public school pupils. Undergraduate students participate in a 25 hour weekly field experience mentoring one elementary school student followed by on site seminars conducted by a university faculty.

Unlike tutorial type programs, the Liberal Studies Senior Project allows undergraduate students to mentor, befriend and serve as role models, thus nurturing the whole child through interactions and on-going assistance. Established since 1990, the Senior Project has provided mentoring to over 700 children in the public schools. Undergraduate students are truly committed to "making a difference" in the lives of children through the Senior Project experience.

Intended Outcomes

The intended outcome of the Liberal Studies Senior Project is to reinforce the idea that college students have a responsibility for community service. The Senior Project provides undergraduate students an opportunity to be of service and assistance to "at risk" children in the community.

Lessons Learned

Enrollment in the Senior Project has increased since its beginning five years ago. College students have expressed their appreciation for this experience. With only a minimum of instruction at the outset, they have quickly adapted to a variety of needs, both cognitive and affective, that they have encountered with their students. College students have been creative in meeting those needs and most have exhibited a high degree of initiative as they cope with the day-to-day problems in their mentoring responsibilities. They have learned, firsthand, about the effects of poverty, violence, family instability, transiency, second language difficulties, and cultural differences that are an endemic part of urban, inner-city living. They have also learned not only that these children can be dramatically helped, but also that without help and extra effort the children will fall further behind with little hope of recovery. Participants have learned how to confront and address unconscious stereotypes or prejudices and faulty conceptions about the role and work load of an effective teacher. Experience indicates that students who intend to be teachers need these types of experience prior to entering the professional preparation credentialing program. It would be beneficial to make such experiences better integrated throughout the students' program prior to credentialing.

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Central Missouri State University

Warrensburg, Missouri

Action Research

CMSU has established a Summative Seminar to encourage and support action research for student teachers. Action research is a practical and directly relevant pursuit reflecting the development of new approaches to solve problems with direct applications in actual situations within the educator's world. The subjects are the classroom students, staff and others with whom the student is primarily involved. It provides an orderly framework for problem-solving and new developments that are superior to the impressionistic, fragmentary approach that otherwise typifies developments in education. It is also empirical in the sense that it relies on actual observations and behavioral data, and does not fall back on subjective opinions of people based on their past experience. It is flexible and adaptive, allowing changes during the trial period and sacrificing controls in favor of responsiveness in experimentation and innovation. It is systematic with findings useful within the practical dimensions of a specific situation (Isaac & Michael, 1971). This experience is crucial to the development of practicing professionals during the student teaching experience.

In Action Research, the students will demonstrate a working knowledge of action research methodology, including the construction, design, implementation and formal presentation of a workable research project. This is done by analyzing instruction and/or classroom events and seeking to solve problems through the development of a research project.

Students conduct research which addresses a specific issue related to his/her classroom situation under the supervision of a faculty member. This is designed to help student teachers become problem solvers through the utilization of proper (and logical) steps.

There are several steps that provide the framework. The researcher observe a specific educational situation and then define the problem or set goal. The researcher will then consider possible solutions and develop an hypothesis in clear, specific and measurable language. It is essential to review the literature and see if others have attempted to achieve related objectives. The researcher then develops procedures and/or conditions and plans interventions. He or she must establish evaluation criteria, measurement techniques, and other means of acquiring useful feedback. Likewise, baseline status must be established as a comparison point when collecting and analyzing the data and evaluating the outcomes. The research must provide conclusions and recommendations regarding the original hypothesis and share the process and the results with colleagues.

Intended Outcomes

The most important purpose of the Summative Seminar is to actively involve student teachers in reflective thinking about issues, concerns and organizational structures from the point of view of the classroom teacher. This is done through the student teachers completing an action research project.

Lessons Learned

The program proves that student teachers are capable of successfully completing research in their classrooms. They can reflectively think about the issues they must deal with every day and make informed decisions about alternative strategies and interventions. Specific training in research is imperative. Teaching and reviewing the steps throughout the semester are critical. Faculty commitment to the process is integral to the success of the experience. Continuous and focused feedback makes the students more secure researchers. There have been 515 projects completed to date, with 256 different topics covered. There has been little redundancy in the research conducted.

The students have taken the skills learned at this level and have transferred them to their own classrooms. The students who completed research as undergraduates have less fear of graduate research classes and are more likely to do thesis work at the master's level. They also get involved in sharing their research as in-service in their professional placements.

If starting the program again, the faculty at CMSU would have instigated gradual development of specific research and formal writing style skills from the freshman year. Cooperating teachers and administrators would be more thoroughly and systematically informed. Since they are not expected to be involved in the research, they were initially ignored in starting the experience. Program founders would publicize the success more widely and thoroughly. Teacher education students are the only undergraduates at the university to all be expected to conduct research.

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Coastal Carolina University

Conway, South Carolina

The Clinical Dimensions of Teacher Education

The clinical dimension of the teacher education program is viewed as critical to the overall impact that the program will have on student participants. If future teachers are to be well-prepared in best practice and have a realistic understanding of the profession as it exists today, their preparation must include meaningful and well-designed clinical experiences which pull together both public school practitioners and higher education professionals working as colleagues with, in this context, one common purpose: the effective preparation of future teaching professionals.

The clinical dimension reform is multidimensional in that the design includes: (a) instruction in teacher education coursework held in the public schools, (b) instruction in teacher education coursework being conducted by public school practitioners as well as higher education faculty, (c) intense off-campus clinical experiences where the teacher education student is in

a teaching role prior to the directed teaching experience and (d) a clinical program that is both developmental and incremental in design.

Intended Outcomes

The reform is intended to ensure that the teacher education program is reality-based in its design and delivery and that the delivery mechanism includes instruction and involvement from highly qualified professionals in the field.

Lessons Learned

The reform seems to be an ongoing developmental process, constantly in need of attention to better communicate expectations held for all involved. The effort is in need of more broad-based support on the university campus as well as in the public schools. This would, hopefully, lead to a greater sense of ownership in the program. While there are a number of higher education faculty involved in the program, most are willing followers rather than eager leaders. In retrospect, additional time might well have been given to build the rationale and the philosophical base for the program and its design. This observation is likely true for the public school practitioner as well. Many are convinced that their present workload expectation from the public school sector is such that they have little time to give to an additional role in teacher education. Most voice the need for their involvement if future teachers are to be well-qualified for their teaching positions.

All involved have learned that, regardless of the effectiveness of the current design, which seems to be effective, best practice in teacher education must include the involvement of public school practitioners in a meaningful way. Additionally, best practice in teacher education must include in-depth study in well-designed clinical experiences that bring the teacher education student closer to the reality of the public school classroom in route to program completion.

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East Carolina University

Greenville, North Carolina

Model Clinical Teaching Program

East Carolina University and the Pitt County Schools have collaboratively conceptualized, designed, implemented, evaluated and modified the Model Clinical Teaching Program for the professional growth of pre-service and in-service teachers. The program was guided by two contextual assumptions: an extended clinical experience with reflective action provides the bridge for pre-service and in-service teachers to integrate theory and practice; and a university/public school partnership is the ideal context in which to integrate these two entities. The program is based on the belief that pre-service teachers experience more professional growth when prepared in a year-long clinical setting with mentors to guide their work and on the belief that a clinical context that is more conducive to experimentation and research provides an environment rich in professional growth for in-service teachers.

Public school and university personnel assume equal ownership in the development of this program characterized by an integrated undergraduate elementary curriculum, a two-semester clinical experience emphasizing mentoring and reflective action, intern cohorts, a team approach to problem solving, and intensive staff development for Clinical Teachers serving in the role of mentors. The program prepares pre-service teachers for the "real world" of teaching, enriches the professional lives of veteran teachers, and improves classroom learning both in university and public school settings.

Intended Outcomes

One goal of the program is to produce a cadre of pre-service teachers who are more knowledgeable about the teaching/learning process, able to apply this knowledge in a variety of ways in the classroom setting, and ready to assume their professional responsibilities as classroom facilitator and manager.

Lessons Learned

In designing the program, developers conceptualized an outcomes-based model of what graduates and clinical teachers needed to know and be able to do and what professional behaviors they needed to exhibit. University faculty and school personnel then created a curriculum and delivery system that would allow interns and clinical teachers to master the required skills and competencies. The evaluation and research results are impressive. They revealed significant differences in conceptual growth, levels of concern, teacher efficacy, and job satisfaction between MCTP interns and clinical teachers and their peers outside the program. A five-year study shows that 97.9 percent of MCTP graduates have remained in the classroom.

Although these results are impressive, the collaborative process was, at times, painful, requiring a willingness of all participants to be open, honest, supportive and steadfast in their commitment to a common vision. However, it was clearly worth the effort. If designing the program again, the developers would have a contractual agreement regarding the reward structures for university faculty and clinical teachers.

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Fort Lewis College

Durango, Colorado

Early Childhood Development Center

The new Early Childhood Development Center is a clinical setting for students to observe the development of children, to participate in a quality early childhood classroom as a practicum student or student teacher, and for community early childhood educators to observe and have training in current early childhood education practices.

In August 1994, Fort Lewis College assumed financial responsibility for the FLC Child Development Center. This change in responsibility makes possible facility renovations, curriculum

reform; competitive position for grants; closer working relationships among college faculty, students and center staff; and establishes the college as a forum for training in early childhood education for the community. The facility was renovated with a new roof, fewer walls, and outdoor play space improvements. The curriculum reforms include new equipment and training for parents, staff and early childhood students in the High Scope curriculum approach. Two grants have been written to fund training for center staff and community early childhood educators. Students in teacher education, psychology and exercise science work with young children at the center. Finally, FLC faculty serve on the Colorado Preschool Project District Council and the LaPlata County Early Childhood Commission. They also work with the Cluster Training Project for early childhood training of public school teachers, Head Start personnel, family day care providers and private preschool personnel.

Intended Outcomes

The private non-profit day care center housed on campus is being transformed into a state-of-the-art early childhood facility. This new, multipurpose lab school will serve faculty (research, training site) and students (practicum placements, student internships) as well as children of faculty, students, staff and community.

Lessons Learned

Although early childhood education has been a part of the mission of FLC since 1991, the timing for the transformation of the non-profit day care center into a state-of-the-art early childhood education facility was triggered by a licensing crisis. If it were possible, such changes would occur after planning with center staff, parents, college administration and faculty. Strategic planning would include mission/vision statements, staff development, facility and equipment planning, and policy changes before the new center opened.

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Indiana University of Pennsylvania

Indiana, Pennsylvania

Educational College-School Partnerships

In 1994, the College of Education began to organize for a new approach to clinical experiences by creating the Office of Associate Dean for Educational College-School Partnerships. In this model, faculty members are assigned to work in a public school as part of their teaching load and provide liaison service between the school and the College of Education. A total of five faculty members from the Department of Professional Studies in Education were given partial load assignments of two to three credits each to serve as "site liaisons" in five school districts. Some faculty also have responsibility for supervising student teachers, which allows them to spend more time in assigned district schools.

Site Liaison Faculty are expected to interact with faculty and administrators looking for ways the IUP-College of Education can interface with the partnership school; explore joint grant opportunities with site-based implications; work with site faculty to problem solve educa-

tional issues; serve as an idea generator and reflector; constantly review IUP policy and curriculum as it relates to all aspects of teacher preparation, particularly field experiences and reflect on how it needs to be adapted for the district in which the site liaison works; serve as the on-site coordinator for all IUP field experiences, field questions, and respond to issues that arise regarding field experiences; assess the needs of student teachers, develop and execute workshops on specific topics such as discipline, classroom management, individual differences, diversity, inclusion, legal aspects, community relations, parenting and children's growth patterns; work with partnership faculty to determine site and IUP program needs and coordinate the delivery of workshops or presentations using IUP resources; and work to develop and expand the concepts/models of teacher as researcher and reflective practitioner; encourage, foster and create a total collaborative school culture and climate.

Intended Outcomes

The project is intended to organize a new approach to clinical experiences in the COE by developing solid, evolving partnerships with select public schools; improving the quantity and quality of supervised field experiences; and promoting the concept of teacher as researcher by developing joint projects between site-based IUP faculty members and public school teachers from partnership schools.

Lessons Learned

Some faculty see the work attached to this assignment as jeopardizing promotion and tenure since clinical experiences in education may be viewed as less important by colleagues. To maximize the potential of partnership relationships, the reward and recognition structure of the university needs to be reconfigured for those faculty selected as site liaisons. Faculty selected for liaison positions need to possess finely tuned skills for working with people and they must be excellent models of knowledgeable educators with exemplary skills as content and instructional specialists. Faculty from across the educational disciplines must work collaboratively to develop meaningful and coherent clinical experiences for students in pre-student teaching practice. Attention needs to be given to issues related to transportation of pre-student teaching candidates traveling from the university to the partnership schools. Additional planning needs to be given to grouping courses for education majors to allow needed time for travel to and from each site with sufficient time for meaningful engagement in partnership school activities. There is an urgent need to expand already existing field experiences for education majors and to encourage and facilitate the initial engagement in controlled and early experiences. From discussions with public school administrators, it is becoming increasingly evident that prospective employers are looking seriously at the type and depth of field experiences prospective teachers have had. Those who can produce a portfolio and articulately discuss their breadth of personal classroom experience are in a better position to receive the increasingly competitive jobs.

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Jacksonville State University

Jacksonville, Alabama

Clinical Experiences: A Scope and Sequence Model

In an effort to provide quality comprehensive and sequential clinical experiences for students aspiring to be teachers, a scope and sequence model that ensures a wide array of laboratory settings for closely-monitored students was developed by the College of Education. The model provides for over 650+ hours of clinical experiences in the teacher education program. The model outlines five levels of clinical experiences, i.e., Level I-college classroom experiences such as micro-teaching, project/unit development, subject matter portfolios, groups research and presentations, etc.; Level II-campus lab experiences in a Teaching/Learning Center which provides tutoring for area school children and a nursery school that provides preschool learning experiences for local preschoolers; Level III-block practicum experiences in area schools for one or two days per week for an entire semester; Level IV-student teaching in area schools for an entire semester; and Level V-first year teaching support team which provides support services for first-year teachers. The model further provides for assessment and remediation at all levels.

Intended Outcomes

The College of Education at Jacksonville State University provides the same amount of time in clinical experiences opportunities for teacher education students as is spent in didactic courses. A hierarchical model provides performance assessment throughout the teacher education program to allow for formative and summative evaluation.

Lessons Learned

The reform effort that created the model of clinical experiences at Jacksonville State involved an impressive program improvement process. A needs assessment identified a weakness in the area of clinical experiences. A review of the college's knowledge base, the literature, the requirements of accreditation agencies, and the talents and resourcefulness of the faculty provided a foundation for model development. The model itself evolved from much discussion and from consensus of the faculty. The model is currently serving the teacher education performance goals well. The model is clearly communicated to students, faculty, area school personnel, and all involved. The effort has been a tremendous learning experience and underscores the need for approaching such needs through a program improvement process.

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Mansfield University of Pennsylvania

Mansfield, Pennsylvania

Student Teacher Reflection and Decision Making Workshops

Each semester, education faculty identify student teachers who are reflective and who are leaders. These student teachers come to campus to learn how to conduct focus groups, and

to develop themes for the workshops. On workshop days, all student teachers report to a site where they have an opportunity to talk with each other and with education faculty for about 30 minutes. Following this, they gather in small groups to thoughtfully analyze, discuss and evaluate issues of teaching, learning, curriculum and the role of schools in a democratic society. Education faculty are not invited to the first part of these discussions. The groups may consist of student teachers only from elementary education or from secondary education, or from the same department, but at other times the groups are heterogeneous. Faculty are invited to participate in the second part of the workshop. They may either visit a group of their choosing or they may be invited by a group in advance. In the concluding workshop hour, student teachers and education faculty take part in a moderated discussion that is built on the earlier meetings. Usually guests (such as principals, undergraduate education majors and university administrators) are invited to this concluding discussion.

Intended Outcomes

The "Student Teacher Reflection and Decision Making Workshops" are intended to give student teachers opportunities to reflect systematically about their development as teachers; broaden their perspectives on teaching; and connect their student teaching experiences with university course work. An additional workshop outcome is to give feedback to university faculty for their reflections about the teacher-preparation program.

Lessons Learned

The education faculty members have observed in these workshops that student teachers have the capacities and dispositions to engage in professional decision making and reflection. Furthermore, it appears that in making decisions, the student teachers draw on the knowledge frameworks that they have constructed both from "apprenticeships of observation" in their own schooling and from their professional studies of pedagogy. Student teachers have reported that the reflection workshops decreased the isolation that some were experiencing in the public schools, and that the workshops gave them time to think about what they were doing in their classrooms now, and what they might do in the future.

Every workshop is based upon the three-part discussion framework, but each workshop has been unique. Plans for future workshops include restructuring the overall teacher-preparation program so that student teachers are prepared to take greater ownership of the planning and running of the workshops (this may involve using videotapes of the workshops in some of the introductory professional courses); inviting other members of the educational community to participate (these persons could include school board members, parents, teachers and university faculty from the liberal arts); expanding the scope of the workshops; and giving more student teachers the opportunity to be leaders in the focus groups.

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Middle Tennessee State University
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Professional Development Schools

Through special arrangements with local school systems, MTSU established two professional development schools in 1993-94 and is in the planning stage to add a third PDS in 1994-95. PDSs are viewed as practical extensions of MTSU's pre-service program. MTSU education students have direct and extensive field experiences at the PDSs throughout their course work at MTSU, as well as during their student teaching semester. Student teachers at the PDSs are assigned to teams of teachers, who plan a full semester that immerses them in all aspects of school life rather than just one classroom. In addition, MTSU faculty and PDS teachers jointly conduct school-based research projects focussed primarily on enhancing the school's learning environment and extending the knowledge base. Further benefits derive from the offering of MTSU faculty expertise to problem solving and professional development needs identified by the PDS faculties.

Intended Outcomes
Intended outcomes of MTSU's professional development schools program include providing more relevant field experiences for pre-service teachers; professional development opportunities for both school-based and university-based faculties; opportunities for collaborative field-based research; and enhanced learning environments for children.

Lessons Learned
University and public school partners greatly appreciate the increased university-public school collaboration. Embarking on a new path is difficult and many of those involved can be apprehensive about the unknown. Public school personnel have thoughtful insights into and practical ideas for teacher preparation. University faculty have much to contribute to collaborative problem solving in the public schools. Field experiences in the enhanced environment of a professional development school can provide more comprehensive insights about how children learn and how schools operate.

Do extensive planning before initiating the program. The preparation of personnel, both university and public school, is critical.

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Northeastern Illinois University
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East Maine District #63/Northeastern Illinois University Apprenticeship Program

Research indicates that increased involvement in early field experiences improves a pre-service teachers performance, but there is little formal evidence of the effectiveness of field

experience programs. The developers of this project chose, therefore, to link the clinical component and the field-based component to study its effect upon future teachers and the participating faculties. This reform involves joint discussions of the faculty, principals, district administration and university personnel prior to each year's beginning. At the year's end they examine the effort, recommend changes and discuss future additions.

Several components comprise the project, such as: on-campus seminars chosen in concert with the faculty; joint meetings held at the participating schools involving volunteer teachers; joint evaluation of the students; and joint research projects between the pre-service student and the cooperating teacher. The project also includes options to complete student teaching at the school with the same teacher or another within the same building (this is based on student, teacher/principal requests); ongoing discussions with the participating faculty throughout the district; consistency of participating university personnel, developing an ongoing trust-building situation; and shared evaluation of the pre-service program.

Intended Outcomes

This reform is intended to provide an environment for pre-service students that would provide growth-inducing experiences that would lead them from knowledge "about" to knowledge "how" to interact within school settings and with children, increasing their first year success rate. The apprenticeship allows the field-experience student to grow into teaching by allowing them time to find out how they fit into a school culture and community.

Lessons Learned

The most important things learned deal with the value of shared decision making at all levels. This is reflected in an on-going assessment of the program by all participants, leading to program improvement; adjustment according to schools needs because each community and culture within a district vary; increased professionalism among the staff and future teachers; investment by the teachers and principals to network with colleagues to obtain jobs for their proteges; and a recognition that honesty, trust building, satisfaction and nurturance will lead to positive results only if a true time commitment is undertaken by all participants.

It would be helpful if the cooperating teacher interviewed the students before their entrance into the school. An increased student contact time in the field throughout their methods courses would be beneficial. Future projects should encourage students to broaden their experiential base within the school to include the special classroom situations; engage teachers across districts (city and suburb) to share their expertise with one another; conduct seminars weekly, rather than bimonthly; and conduct mentoring seminars for the participating teachers and schools.

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Purdue University North Central

Westville, Indiana

The Master Teacher Corps

While university faculty possess a vast knowledge base in instructional pedagogue in their various disciplines, they sorely lack current elementary education teaching experience. This severely limits their ability to demonstrate to pre-service teachers how that pedagogue is successfully applied in a classroom setting.

Each spring, the university selects from the surrounding community a currently practicing elementary teacher who meets established criteria as a "master" teacher to come to the university on a paid one-year sabbatical. It is called the Master Teacher Corps Program.

This individual co-teaches methodology courses with faculty, coordinates the student teaching experience, supervises some student teachers, conducts seminars, and acts as a resource to pre-service teachers.

Intended Outcomes

Pre-service teachers will receive valuable knowledge on how pedagogue is implemented in a classroom through instruction by a currently practicing master elementary school teacher.

Lessons Learned

This innovation is currently in its first year. To this point, it has been tremendously successful with no plans at this time to change the focus of the experience in any significant way.

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Rowan College of New Jersey

Glassboro, New Jersey

Improving Preparation for Teaching in Inner-City Schools: The Pre-service Component of a PDS Collaboration

Prior to the efforts of this reform, most new hires in the Camden (N.J.) school district had alternate route preparation. In addition, few graduates, other than those who were inner city residents, applied to teach in Camden or other urban areas. This reform addressed the need for the focused preparation of elementary teachers committed to and well-prepared for teaching in urban schools; to increase the contact of all our elementary graduates with minority populations and successful urban schools; and to increase the involvement of experienced and competent urban teachers in teacher education.

The pre-service component of the Professional Development School (PDS) collaboration between Rowan College of NJ and the Camden School District consists of three phases. First,

all elementary education majors visit the PDS for a half day as part of their initial professional course in the program. Second, juniors in the program can apply to complete their practicum field experience (one and a half days per week for an entire semester) at the PDS. Third, teacher candidates from the practicum group can apply to complete their student teaching (daily for the entire semester) there.

Supervision during student teaching is intense. At the PDS, a team supervision approach has been developed in which two college faculty members equally share the supervision responsibilities. Each student teacher is visited by a college professor at least once a week, and weekly seminars are held on site by the two professors to address concerns or critical issues. PDS teachers participate in the seminars and offer suggestions for strengthening the teacher education program. This affords the PDS teachers the opportunity to engage in the role of teacher educator, which leads to the enhancement of their own professional repertoire and status.

Intended Outcomes

Teacher candidates graduating from the Elementary/Early Childhood Teacher Education Program at Rowan College of NJ will have improved skills and increased knowledge about teaching minority populations in an inner-city school, an increased sense of personal efficacy, and appropriate expectations for student learning.

Lessons Learned

The in-service professional development activities should be linked with the pre-service teacher education program. This linkage enables cooperating teachers, college professors, and teacher candidates to speak the same language and pursue the same goals. Enhancing the contact between teacher candidates and cooperating teachers (accomplished at a summer planning retreat that involves all PDS personnel) leads to increased involvement in curriculum planning and decision making concerning meaningful learning experiences for the children. By meeting their cooperating teachers before the school year begins, the student teachers are able to gain entry to the school and classroom expeditiously. In addition, the teaming approach to supervision is an effective technique to increase college faculty contact with the PDS.

In the future, the project seeks to increase the pre-practicum visit to a minimum of two visits. Similarly, an increase in the use of PDS teachers in the courses offered in the teacher education program is desirable. Their involvement could consist of planning the curriculum and/or learning activities offered to the teacher candidates and co-teaching certain topics.

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San Francisco State University

San Francisco, California

Clinical Schools Project

Ten elementary schools, reflective of the city's sociocultural-cultural diversity, serve as professional development sites ("clinical schools") for the intensive field work of CSP interns. Through the admission of candidates in cohorts, team-building, and group work experience, a support network and professional reference group for interns is created. Clinical experience is enhanced by placement in three culturally, linguistically and socioeconomically different school and neighborhood communities during training; involvement of the entire school staff in the training of teachers; increasing in number of hours of field practice in schools (9 hours per week in an elementary school in the first semester; 12 hours a week in the second semester and four full days, approximately 28 hours per week in the third semester); participation by interns in the life of the school beyond the classroom during all three phases of training; and assignment of university liaison to each of the 10 schools. One faculty member is assigned as liaison to two clinical schools. The liaison role requires weekly visits with interns and clinical teachers at each school site, monthly site team meetings, participation in twice monthly liaison "conversations," and contributions to monthly leadership team meetings.

This change in the nature and duration of field experience produced more confident, persistent candidates and precipitated positive changes in the roles of and relationships between teachers and professors.

Intended Outcomes

The goal of the Clinical Schools Project is to more comprehensively prepare teachers for effective service in multicultural, multilingual, urban elementary schools.

Lessons Learned

Admission of interns in cohorts, team-building and group projects has created a strong, interdependent group of professionals. The mutual support they give and receive through and beyond their training has allowed them to persist in the very difficult early phases of beginning teaching.

Working intensively in three socioeconomically and culturally different schools for over 600 hours has resulted in a disposition toward culturally responsive teaching and a deeper empathy for children whose primary language is other than English, and for children whose lives outside school are beset by social and economic distress.

Increasing the participation of classroom teachers in teacher training has raised the consciousness of teachers about their craft and improved their practice. It has also, in some cases, created burdens for the teachers whose primary task is teaching children.

The teacher educator role is not built into the reward system for teachers. It is an extraordinary commitment. Care must be taken not to exhaust classroom teachers with this added responsibility. It would be desirable for school districts to consider the assumption of teacher education responsibilities as a form of professional development and compensate teachers accordingly, e.g., with released time.

The presence of university faculty liaisons at the school sites has been cited by teachers as one of the benefits of participation in the CSP. Increased interaction among professional colleagues in university and school through informal contact and structured reflection sessions has been of mutual benefit. University course work has been restructured to make the theory-practice linkages stronger.

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Southeastern Louisiana University

Hammond, Louisiana

Reading/Mathematics Pedagogy Clinical Restructuring Project

This project piloted a redesigned field experience component for the reading/mathematics pedagogy course for elementary pre-service teachers. This course is first in the sequence of planning/teaching experiences in the teacher education program at Southeastern Louisiana University. Pre-service elementary and middle school teacher candidates are enrolled in this course during the third year of a four-year program.

The field experience in the reading/mathematics pedagogy course at the institution has involved "borrowing" classes of students for two weeks during the first half of the semester and again during the second half of the semester, each being taught at a different grade level. During each two-week period, pre-service teachers taught a group of two to six students for five consecutive days in reading or mathematics followed by five more days in the other discipline. This pilot field experience was changed to meet throughout an entire semester. Working in pairs, pre-service teachers met with a classroom teacher every Tuesday and Thursday, one day was spent in a reading classroom and the other in mathematics. These classroom assignments were made to offer teaching experiences at two different grade levels. This practicum included, but was not limited to, teacher observations, individual tutoring, several small group instructions, and finally three days of consecutive whole class instruction in each discipline.

Intended Outcomes

The intended outcome of this project is to improve the structure of the clinical component for the elementary reading/mathematics pedagogy course at Southeastern Louisiana University. It was designed to lower the stress level for pre-service teachers; more closely align the field experience with the real classroom; more authentically assess students; provide for individual, small group and whole class instruction; and use the expertise of the classroom teacher.

Lessons Learned

The pilot project is currently in its second semester. The new structure is addressing many concerns of the previous program. The stress level of the pre-service teachers was greatly reduced. Instead of having to plan and implement five consecutive days of instruction as an initial classroom experience, the pre-service teachers evolved gradually, becoming immersed in the clinical experience by moving from teacher observations to individual, small-group, then whole-class instruction. They gained some knowledge of the students and classroom

routines prior to instructing. Professors were able to assess more authentically by observing each student for longer periods and in real classroom settings. Finally, classroom teachers enhanced student development through modeling and advising.

The major weakness of the program is the potential weak mentor teacher. A pool of strong teachers will be developed through assessment and in-service. Some changes have already been implemented. The consecutive instruction changed from three days to five days. Points towards an assessment grade by the mentor teachers has been deleted. Efforts to assign only one pair of in-service teachers to a particular class of students in a single discipline are being made.

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Stephen F. Austin State University

Nacogdoches, Texas

Field Basing Teacher Education

The research on teacher preparation from a national prospective, as well as from locally generated data, clearly points to earlier and more intensive field experiences being the key to effectively trained teachers. With that knowledge base, the University worked collaboratively to design a field based program that would result in a teacher of quality.

The University established a collaborative relationship with five area school districts, a community college, a Regional Education Service Center, and the community. The purpose of the collaborative is to totally restructure teacher preparation in order to improve the quality of teachers, thus increasing student achievement K-12. The teacher preparation program is in its third year of operation and beginning Fall, 1995, all students seeking initial certification will be in the field based program. The four year program includes general education, academic specialization, and field based professional education. Selected prerequisites and foundations courses are taught on the university campus. With admission to teacher education, students begin pedagogy courses taught at a public school site. Each of the field based courses has an internship component. Interns work with mentor teachers tutoring individuals, shadowing teachers, preparing teaching materials, teaching small groups, working in service areas, and participating in staff development. Finally they complete a full semester of student teaching. The restructured program has many benefits, including intensive field experiences in the real world of public schools. The delivery of pedagogy courses on site creates a higher level of relevance as well as intensified sharing of professional knowledge, skills, and concerns among professors and teachers.

Intended Outcomes

The intended outcomes of this reform include a totally restructured program of teacher preparation in a field based model within a technology-rich environment. The ultimate outcome is increased achievement by students K-12.

Lessons Learned

There are various barriers to change of this magnitude. Bridges to override the barriers include spending more time in collaboration with arts and sciences professors emphasizing the need to restructure teacher preparation to prepare a better teacher and maintain the university's role in teacher preparation; having ongoing training in group decision making and teaming; and involving every professor of pedagogy in some part of the restructuring effort.

While there are many barriers to implementing a restructured program, the positive results far outweigh problems encountered. Better prepared teachers and higher student achievement are goals worthy of all efforts we expend to reach them. As partners reflect on establishing a Professional Development Center, certain decisions and actions stand out as critical to the success of implementation. Among those are have the strong commitment of university leaders to the restructuring of teacher preparation (especially the president, academic vice-president, dean of the education unit and chairs of the departments). Public school partners must also be committed to restructuring and knowledgeable about the model. Committed and energetic leaders at the state and local level are essential. Change of the magnitude represented by the restructuring of a total teacher preparation program is not easy, but the imperative to educate citizens who can meet the challenges of the 21st century demands it.

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University of Maine at Farmington

Farmington, Maine

Secondary Education Block

The clinical dimensions of teacher education constitute the most important piece of any teacher education program. Four-year teacher education programs are limited by time constraints, especially in secondary education where students must meet the requirements for a content area major as well for education. Since course requirements provide little room for enhancing field experiences, it is necessary to maximize the impact available course work will have on learning. Students need opportunities for practice, feedback and reflection in applying teaching techniques learned in methods courses. Team teaching methods and field experience enhance learning by streamlining courses to provide more in-depth focus and reinforcement of theoretical concepts. In addition, the team teaching itself provides an excellent model for students in collaborative teaching.

All secondary education majors are required to complete EDU 202, a field practicum, EDR 301, a content literacy course, and EDU 311, a curriculum and methods course. All three are traditionally taught by separate instructors, working independently. Although a sequence is suggested, many students take the courses out of sequence or from different instructors, covering different material. This has necessitated some repetition in all courses, and students have had no opportunity to apply concepts learned to real practice. In addition, practicum

supervisors were constrained by time from teaching and/or reviewing concepts covered in methods courses, causing the field experience to be less valuable than it might be.

The newly-instituted Secondary Block now requires students to take all three courses concurrently. Instructors met over the summer to identify and assign main concepts taught by each course, allowing for more in-depth coverage of each concept. The courses are team-taught and include both classroom and field experiences. Students use 7-12 textbooks from classes they are working in to develop real courses, units and lesson plans in all methods courses. As a final project, students prepare a single integrated portfolio, labeling and classifying information on concepts learned, and including samples of best work, reflective essays, and a bibliography of resources.

Intended Outcomes

The Secondary Education Block allows pre-service teachers to integrate methods courses with field experience through immediate application of course content in real classrooms. Students benefit from supportive feedback from their university supervisor, their cooperating teacher, and their classroom professors.

Lessons Learned

At mid-point of the first semester with the Block, students are better prepared to work in the classroom. They are more intelligent observers of methods and techniques and are more anxious to jump in and try their own hand at teaching. When they do teach, the students get three-way feedback from their cooperating teacher, their college supervisor, and their methods instructors. This keeps them open to different perspectives and makes them more critical and reflective in their self evaluations.

Through the ongoing collaboration of the team, individual student needs can be quickly and efficiently identified and acted on. Faculty get to know the students much better and can address individual problems before students reach their final student teaching experience. The evaluation process is strengthened considerably.

However, since the Block is the students' first introduction to education, it can be overwhelming for some students who are not yet professionally mature. It requires a great deal of independent work and significant time in the field. It presents many new concepts at once. This problem can be solved by a rearrangement of courses. It would be useful for students to take the curriculum and methods course, which provides an introduction to educational theory, as a prerequisite to the Block. Courses that are most related to hands-on activities, such as Content Literacy and Teaching the Exceptional Child, could then become part of the Block. They are more compatible.

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University of New Orleans

New Orleans, Louisiana

Urban Partnerships for Teacher Development

The Urban Partnerships for Teacher Development project is established in "mentoring sites" (for placing small groups of student teachers) and "clinical sites" (for initial socialization, observation, and laboratory experiences for students new to teacher education). Partnership sites are public schools in the urban parishes (counties) in greater New Orleans. The selection of schools, training of their personnel, and design of the experiences for student teachers build on the professional studies portion of the on-campus teacher education program.

The Urban Partnerships project prepares veteran teachers to serve as coaches of pre-service teachers. The future teachers involved in the Partnerships are students in their last semesters of study who are taking part in observations in classrooms, doing "mini-teaching" exercises, and completing a semester of student teaching. The classroom teachers with whom these students work take graduate credit courses as school teams to study the latest modes of mentoring, coaching, supervising and evaluating future teachers. In each school, the team of teachers forms a "community of learners" with the students. Teachers work with students, discuss students' observations and laboratory teaching projects, and facilitate the movement of full-time student teachers from novice aide to teacher-in-charge in a problem-solving framework that accentuates the interaction of theory and practice. Additionally, teams of teachers from the schools form a multi-school collaborative for sharing ideas about fostering new teacher teaming, for exchanging professional knowledge, and for channeling advice to the college about improving the on-campus portion of the teacher preparation program. Multi-school collaboratives are composed of team members from all Partnership sites who come to a monthly "Circle of Dialogue," which is integral to the project.

Intended Outcomes

The Urban Partnerships for Teacher Development are intended to transform schools that receive the college's future teachers into "communities of learning." Four initiatives are central to the process: to prepare veteran teachers in those schools to serve as facilitator coaches in the clinical learning of student teachers through a problem-solving model (rather than traditional supervision); to place the interaction of theory and practice at the center of learning; to create a network of schools with these common purposes in which teachers share their challenges and successes; and to capture the advice and counsel of strong classroom teachers for the continuous improvement of the teacher education program.

Lessons Learned

Veteran classroom teachers returning to the university to study facilitative modes for working with future teachers become re-energized about their profession and their work. Establishing collaboratives of these teachers provide "veterans" the kinds of networks they need to stay vital and renewed in their work; the sources of connection are a common language, a developmental philosophy about working with pre-service teachers, and the opportunity to share their own challenges and successes with others who are part of the Partnerships project.

When teachers join each other in the "Circle of Dialogue" to share their general day-to-day experiences, when they talk with peers about their facilitative work with pre-service teachers, and when they collectively articulate the ways the college can strengthen the on campus portion of the curriculum, the Partnership teachers discover a powerful, but usually dormant, professional voice. Treating classroom teachers seriously as clinical extensions of the professional faculty gives them a status that enhances even the highest recognition they might otherwise receive from their schools and school districts.

The project plans to bring school principals into a more active involvement with the Partnerships. Principals and teachers will be encouraged to define and design broad-based school improvement through the vehicle of the pre-service Partnerships. The potential of the principal to act as a participant and facilitative leader among teacher leaders will be explored.

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The University of North Carolina

Chapel Hill, North Carolina

Model Clinical Teaching Network

The mission of the Model ClinicalTeaching Network (MCTN) is to promote innovative, collaborative clinical approaches to teacher education characterized by diversity and concern for equity. The Model Clinical Teaching Network programs are designed to strengthen teacher education programs through restructuring clinical experiences and demonstrating innovative practices that focus on cooperative teacher education. The MCTN provides innovative models that are clinically based and integrate research, theory and practice in realistic settings where trained mentors are in residence to provide supervision. The ultimate goal is to improve teaching practice and student learning.

The MCTN programs are partnerships among 12 colleges/universities and 67 school districts to strengthen teacher preparation and improve the quality of education for North Carolina's teachers. The MCTN programs were established as a result of a report from the Task Force on the Preparation of Teachers, submitted to the North Carolina General Assembly in 1987. Each of the MCTN programs are collaboratively developed and include supervised clinical practices for student teachers; a cadre of clinical faculty within the public schools who have a major responsibility for methods courses, student supervision, and professional practice; programs which make effective use of summer school in the preparation of teachers; and models that provide a strong supervised induction experience for beginning teachers. The goals of the MCTN are to determine best practices for collaborative clinical teacher education, prepare clinical teachers for new leadership roles in the universities and public schools, generate and synthesize knowledge on clinical teacher education, promote collaboration with all of the stakeholders in the preparation and continuing professional development of teachers, and advocate for policies and incentives which support collaborative and clinical teacher preparation. MCTN is also developing performance-based standards for student teachers.

Intended Outcomes

The purpose of the MCTN is to strengthen teacher education in North Carolina through school/college partnerships that focus on clinical experience and the inclusion of practicing teachers in the preparation of future teachers. The MCTN provides collaborative models for the continuous professional development of teachers from recruitment to retirement. The intended outcomes are that a number of diverse and innovative models for teacher education will be developed, implemented and evaluated; successful models will be integrated into the teacher preparation program at the host institution; and these models will then be disseminated throughout the state for other institutions to adopt or adapt.

Lessons Learned

MCTN programs are highly successful in implementing innovative programs to strengthen teacher education, as demonstrated by programs receiving the AACTE Distinguished Achievement Award, two Christa McAuliffe Awards, three ATE Distinguished Programs in Teacher Education, and the NEA Exemplary Program in Teacher Education.

The program at East Carolina University has demonstrated that a year-long internship for pre-service teachers with specially prepared clinical teachers is more effective that traditional teacher education. Analyses of data reflect differences in teachers' growth and development and shows a 97.9 percent post-graduation classroom retention rate.

The program at North Carolina State University has implemented and disseminated a curriculum for preparing clinical teachers that is more effective for mentoring, supervision, and increases the classroom effectiveness of clinical teachers.

The programs at University of North Carolina - Chapel Hill, University of North Carolina-Wilmington and Winston Salem State University have established professional development school models that provide continuous development from pre-service through in-service education. These programs include stakeholders from the university, public schools, local communities and business in the decision-making process.

The program at Appalachian State University has integrated techniques that demonstrate the effective uses of technologies such as interned interactive video, computer-aided instruction, and multimedia production in teacher preparation.

Other MCTN programs have developed and implemented models that focus on reflection in the teaching-learning process, integrating special education into regular teacher education, using a case study approach, using a medical model with interns doing rounds, and integrating issues of diversity into teacher preparation.

A compatible program evaluation and assessment should have been developed prior to the development of individual programs.

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The University of North Carolina at Charlotte

Charlotte, North Carolina

Project Supervisor

Project Supervisor is designed to prepare practicing master teachers from public school systems for roles as university supervisors of student teachers. It is a collaborative effort between the university and public school systems to train school-based faculty to serve as clinical supervisors for pre-service teacher education programs. It spans the K-12 population, including special education and general education classrooms. The public schools provide sites for pre-service clinical practice as well as a cadre of outstanding teachers. All teachers selected by the school systems to become clinical supervisors participate in a preparation institute which encompasses specialized training in the supervision of student teachers. The training and support for these clinical supervisors consists of three phases. First, a week-long intensive workshop on the roles and responsibilities of university supervisors, including observation and conference techniques, is offered. Second, each clinical supervisor is assigned a mentor, who is a full-time university-based supervisor of student teachers. The third component of the training and support consists of occasional seminars pertaining to topics which enhance their supervisory skills. A total of 13 area school systems and 111 master teachers have collaborated with UNC Charlotte on Project Supervisor since its inception in 1988.

Intended Outcomes

Project Supervisor is designed to expand and enhance the public schools' role in pre-service teacher preparation through specialized training opportunities for classroom teachers to serve as university supervisors as they maintain their roles as full-time classroom teachers. This collaborative endeavor strives to provide opportunities for student teacher placements to all local education agencies served by the university and to expand the role of the classroom teacher (Adjunct Clinical Supervisor) in pre-service teacher preparation and in beginning teacher induction efforts.

Lessons Learned

This program reveals that high-quality placements for student teachers can be consistently obtained. With clinical supervisors serving as both the university supervisor and as a partner in identifying quality cooperating teachers and schools within their school system, the student teachers have a greater chance of success than those in the regular program whose placements are somewhat more random.

Project Supervisor was the impetus for the development of a mentor system for new university supervisors, both clinical and university-based. The training, support strategies and materials have been incorporated into the larger program as a means of providing support in a pro-active fashion for faculty members who have not been involved in student teaching supervision at UNC Charlotte.

The overall program has been very successful in its intent to create more collaboration with K-12 schools by creating a cadre of clinical supervisors in an array of diverse school districts. The classroom teachers are participating in the pre-service preparation of teachers beyond the role of serving as the Cooperating Teacher. Additional ways in which the clinical supervi-

sor can be used in pre-service teacher preparation and in beginning teacher induction efforts need to be explored.. Possible activities include conducting seminars, serving on the mentor/support teams of former student teachers and other beginning teachers, teaching classes on campus, and assisting school systems with recruiting efforts on campus.

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University of North Florida

Jacksonville, Florida

Alliance for Tomorrow's Teachers

The Jacksonville AT&T Alliance for Tomorrow's Teachers established three urban professional development schools, supported in part by a grant from the AT&T Foundation to encourage collaborative efforts to reform urban education and the preparation of teachers for urban classrooms. The project created a cadre of mentor teachers and restructured roles for both university and school-based faculty. Selected K-12 teachers, on alternative assignments, worked with education students in pre-internship and internship experiences. In addition, half of their time was spent assisting their colleagues in implementing agreed-upon school improvement plans by enhancing the teaching and learning which was talking place in each classroom. University faculty spent at least two days each week at one of the Alliance's professional development schools and worked closely with K-12 faculty in designing and implementing school improvement plans, on-site in urban schools. Inter-institutional planning/study teams were established to design, implement and oversee the project.

The clinical component of the University of North Florida teacher preparation program was significantly altered as a result of the AT&T Alliance project. Changes in four specific areas are noteworthy. The project provided for pilot-testing of an early field experience and studying it in a field-based seminar; it reconceptualized pre-internship experiences by providing structured field experiences prior to student teaching; it restructured internship experiences by clustering 18 interns each semester at each of the three sites with experienced teachers providing on-site supervision; and the project redesigned school-based and university faculty roles.

Intended Outcomes

The purpose of this project was to restructure the clinical component of the teacher preparation program in the College of Education and Human Services at the University of North Florida, while simultaneously assisting three urban elementary schools in area county school districts, to produce increased achievement in K-6 students and reduce the attrition rate of beginning teachers working in urban settings.

Lessons Learned

The amount of resources and time needed to collaborate for change and the power of resistance to systemic change were underestimated. Teacher preparation and K-12 schooling must

be restructured as an integrated system, but systemic change requires operating three systems concurrently during the transitional phase of the reform process: the traditional system, the alternative system, and the change system which creates a bridge from the old system to the new system and develops the technical skills required for change. Rules and regulations are less of a barrier than the hesitancy of bureaucrats to change. The reward structures in K-12 and higher education must change to support systemic reform. Reward structure in both systems continue to favor isolation and independent action while giving lip service to the importance of collaboration and change. School-based faculty and university faculty must shift their personal belief systems and acquire and use emerging knowledge bases and skills in technology, cultural diversity, urban learners, and workplace competencies. This will necessitate significant investment in the professional development of university faculty along with their colleagues in the K-12 system. Finally, principals and other support personnel must be intimately involved in changing the climate, culture and instructional patterns in urban schools. The restructuring of the preparation of education leaders and other support personnel becomes as important as restructuring teacher preparation programs.

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University of Northern Iowa

Cedar Falls, Iowa

San Antonio Student Teaching Program

The San Antonio Student Teaching Program is a collaboration between San Antonio independent school districts and the University of Northern Iowa. A cohort group of student teachers complete two student teaching assignments of eight weeks each during their semester of student teaching. Concurrently, they are enrolled in a three-hour course designed to increase awareness and implementation of the principles of multicultural education. During the semester, they participate in local multicultural events and work with a variety of community and school resource persons to expand their perspectives with regard to the issues of urban, multicultural education. Toward the end of the semester, students are given interviews for teaching positions. Those who begin their teaching in the San Antonio area are given informal university support in their first several years of teaching.

Intended Outcomes

The San Antonio Student Teaching Program offers field placements and supervision designed to prepare beginning teachers for practice in urban, multicultural classrooms, where our nation needs its most skilled and committed teachers. Intended outcomes are to increase the number of graduates who seek and value teaching positions in urban, multicultural environments and to lower the attrition rate for them in the first two years of teaching in such settings.

Lessons Learned

The primary learning over the last two years is that teachers trained in the midwest can and do teach successfully in urban, multicultural classroom settings. Attitudes of open-mindedness, enthusiasm and responsibility have characterized their approach to teaching in

classrooms very unlike those in which they themselves were schooled. Over half of those trained in the program have elected to teach in urban, multicultural schools in Texas, usually schools serving lower socioeconomic populations. Moreover, they have elected to remain in those positions with commitment, enthusiasm and success.

Learning about language diversity has been important in this program, and the message being sent back to midwest university campuses is to encourage and even require teacher candidates to be bilingual. Since the U.S. is the fifth largest native Spanish speaking country in the world, and since Spanish is the most frequent language for non-English monolingual speakers in the San Antonio area, Spanish is seen as especially important. Although teacher candidates do not officially need to speak Spanish, it is a great asset for the public school students and for many monolingual parents who are typically hesitant to participate in their children's school programs.

It appears that in student teaching so far away from home, students are more open to critically form their own opinions from their personal experiences in favor of accepting the assumptions of the local culture in which they have grown up and been socialized. They have appeared to make dramatic movement in their own multicultural development.

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University of Wisconsin-Parkside

Kenosha, Wisconsin

The Clinical Dimensions of Teacher Education: Focus on Urban, Multicultural Education

In a survey of new and practicing teachers, it was found that most do not feel comfortable or have not been prepared to work with the diverse populations found in the metropolitan areas of the country. The purpose of this program is to help non-minority individuals become at ease and more familiar with learning and teaching strategies which can work successfully with students of color.

The pre-college program at the University of Wisconsin has many facets, one of which is a summer program and another is a group program in the junior and senior high schools throughout the year. The Summer STARS ACADEMY is an enrichment program composed of classes developed by practicing teachers who want to experiment with a new unit or try new teaching strategies in a controlled setting. The students are 125 students of color from the Racine and Kenosha area who chose to participate in the three-week, all day program. Teachers have no more than 15 students per class and are given the opportunity to take field trips and have access to any type of equipment and materials they wish, which is often not the case in their schools. Teaching assistants are assigned from the teacher education program and often students adding a new certification use this as a clinical experience.

During the year, teacher education students become group leaders and tutors for the Cultural Awareness Leadership Councils, which are groups of students in each school interested in

increasing their awareness of multicultural and community issues. Students prepare a curriculum which focuses on academic personal, social and emotional development of students and become role models as well as tutors for the students. The program operates in all junior and senior high schools in the Racine and Kenosha area.

Intended Outcomes

The inclusion of the precollege program in the School of Education as a clinical dimension of Teacher Education is designed to provide the opportunity for pre-service and in-service teachers to work with children of color in a safe environment and to provide the opportunity for pre-service, in-service teachers and faculty to try new curriculum strategies, new teaching styles, and become better acquainted with the cultural dimensions of the learning styles of different racial groups.

Lessons Learned

The project teaches that the fear of students of color and lack of understanding of their behavior feels real among students who have not been in multicultural settings. But in a setting which allows coaching, discussion and tolerance, these attitudes change. If changes in the program were made, there would be more time for teachers and teacher assistants to meet with a team leader and coach to talk about their daily experiences. Keeping logs does not really get at the issues.

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Western Kentucky University

Bowling Green, Kentucky

Project TEAM: Preparation of Early Childhood, School Psychology, Social Work and Speech/Communication Disorders Students for Early Intervention

The culminating experience for Project TEAM is a five-week summer practicum in which students from each of the four disciplines of Interdisciplinary Early Childhood Education, School Psychology, Social Work, and Speech/Communication Disorders work as transdisciplinary teams with children, birth through five years, both with and without disabilities, and their families in an inclusive early childhood setting. The number of teams vary each summer, but each team includes at least one student from each of the four disciplines and one faculty member from one of those disciplines. This practicum provides students an opportunity to apply knowledge and skills that address major trends in early childhood reform efforts (i.e., services in inclusive settings, family-centered services, and collaboration among professionals and families). The literature suggests that few programs offer practicum experiences in which students work on an ongoing basis with other professionals as team members and that few practicum experiences with families are required. Further, graduates in the related services disciplines may obtain public school positions that require them to work in early childhood settings, but typically have few clinical experiences with that age range as part of a pre-service program.

The primary role of the faculty member is to facilitate team functioning. Each faculty member also provides individual supervision for students in her or his respective discipline. Teams are assigned to an infant, toddler or preschool room at Western Kentucky University's Child Care/Head Start Center. Each team is assigned to be on-site for five hours per day, five days per week. Each student is required to serve as service coordinator for a child and family, plan and implement activities with children and families, participate in an arena assessment, and complete individually determined activities. Activities are individualized based on the professional development needs of the students. A self-rating of performance standards is completed pre- and post-experience. Each student completes an individual plan and submits a portfolio based on the self-rating of performance standards. Seminars during the internship period provide a vehicle for students to reflect on team skills and functioning.

Intended Outcomes

Project TEAM is a performance-based, interdisciplinary program for the preparation of early childhood educators, school psychologists, social workers and speech/communication disorders specialists to work with children (birth through five years, both with and without disabilities) and their families in inclusive settings. Through a sequence of interdisciplinary course work, seminars and a culminating practicum experience in which students work in an inclusive early childhood setting as transdisciplinary team members, program participants are prepared to work in early childhood settings which are moving toward more family-centered, transdisciplinary services.

Lessons Learned

Several factors have been essential for the development and effective implementation of this practicum. First, it has had administrative support since its inception. With program implementation, department heads have allowed for flexible scheduling of the practicum, have participated in advisory meetings, and have valued the interdisciplinary activities in faculty evaluation. Second, faculty from each discipline who are committed to interdisciplinary efforts have taken a leadership role in representing their respective programs in planning, implementing and evaluating the practicum. In this role, faculty members have served as the liaison with their respective administrators. The faculty team also serves as a model for students. Third, an already existing practicum site is available in which staff and administrators allow for the flexibility to implement a team-based, family-centered clinical experience. Fourth, students and their future employers are recognizing the importance of the skills which they are obtaining and their relationship to real-world settings. Increasingly, employers are seeking applicants who have experience as a team member. The strong professional support network that develops among students is also a key ingredient of the program.

Barriers to interdisciplinary efforts may have to be addressed. Discipline-specific accreditation requirements may have an impact on practicum design and implementation. Lack of human and fiscal resources may have an impact on program implementation. For example, an administrator may support the interdisciplinary efforts, but because of faculty load constraints may not be able to accommodate the program scheduling needs. Barriers to faculty involvement include the time commitment required for successful implementation of interdisciplinary efforts and differences in professional language and practices across disciplines. The faculty team may also be faced with a dilemma if a team member leaves the university and a "new" faculty member with a similar philosophy must be recruited from that area.

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Western Washington University

Bellingham, Washington

The Isom School Experience

The special education department at WWU is committed to assisting students in becoming well prepared for internships. The Isom School Experience is a two phase practicum student supervision model that has evolved in response to this commitment.

Phase One was designed to provide consistent practicum experiences and a standard procedure for providing performance feedback to students. The university supervisor spends two or three days each week at Isom School. This allows for collaboration with/training of cooperating teachers and opportunities to observe and give feedback to students often.

Phase Two, which began in the fall 1994, consists of providing additional support and input to practicum students. In this phase, practicum students are brought together with student interns (current WWU students), first-year teachers, and intern cooperating teachers in varying numbers, configurations and settings. The experiences included interns meeting with practicum students to discuss general internship information and tips, as well as to assist with problem-solving around a theme (e.g. classroom management); practicum students observing interns teaching, along with the university supervisor who identifies key elements for the practicum student to observe; first-year teachers meeting with practicum students to share their perspective of their practicum experience, their internship and subsequent job search; current intern cooperating teachers meeting with practicum students to discuss key elements of a successful internship; first year teachers meeting with interns to provide support and suggestions; first-year teachers asking for observations and feedback from university supervisors; and intern cooperating teachers meeting with first-year teachers to obtain suggestions for strengthening their skills as intern cooperating teachers.

Intended Outcomes

The intended outcome of the Isom School Experience is to increase input to practicum students by providing consistent practicum experiences and structured feedback to students prior to their internship (student teaching) and by providing opportunities for peer support, peer modeling, peer input and collaboration.

Lessons Learned

Observation and informal discussions with activity participants, practicum students and intern supervisors lead to the conclusion that students are more comfortable receiving feedback when they receive it often and from peers and near-peers; interns and novice teachers are often able to provide the kind of feedback which practicum students need; students feel more able to take risks when they are receiving the support of other learners rather than only comparing themselves to experienced teachers; frequent communication with classroom teachers is necessary to clarify expectations, goals, feedback, etc.; supervisors report that students

are better prepared for the internship; interns report they feel well prepared; and interns are excellent models and a valuable source of information and ideas for practicum students.

In designing future programs, it would be wise to provide more structure to interactions, e.g. have students prepare questions in advance, design simulations, etc.; experiment with other additional configurations, such as interns observing and providing feedback to practicum students; and provide opportunities for interns to provide additional information to help strengthen specific skills that practicum students find difficult, e.g. writing objectives.

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5

Modeling Effective Instruction and Creative Teaching

Appalachian State University

Boone, North Carolina

TEAM Computer Skill Development Project

The TEAM project is based on the premise that education faculty should model the pedagogy expected of classroom teachers. If prospective teachers, do in fact, model the instructional methods of methods faculty, then it is imperative that College of Education faculty exhibit the best practices in classroom instruction. Thus, the TEAM Project emphasizes professional development for teacher educators.

Higher education collaboration with K-12 and community was chosen as a goal because of Appalachian State University's Public School Partnership (ASU/PSP), a collaboration with seven school districts and the Northwest Technical Assistance Center (a division of the North Carolina Department of Public Instruction). The Partnership is designed to enhance teacher preparation and continue the professional development of practicing teachers, which are primary objectives of TEAM.

The TEAM Computer Skills Project focuses on computer skills, specifically, skills outlined by the North Carolina Department of Public Instruction in the Computer Skills Curriculum. According to surveys, Partnership teachers feel a need for competency development in databases, spreadsheets and telecomputing. Consequently, the TEAM Project helps teachers develop these skills while building computer confidence.

Just as important as public school emphasis on computer skills, is the imperative that future teachers enter the teaching profession with computer literacy. Consequently, Reich College of Education faculty are encouraged, through release time and technical support, to develop computer skills, to model the integration of technology into classroom instruction and to require the same of students as they prepare model lessons/units.

To accomplish the goals of the project, a team of graduate-level educational technology students and the TEAM Project coordinator provide on-site workshops in the seven-county Partnership region. Besides the development of computer skills, a priority is the appropriate integration of computer skills into the curriculum. In addition to workshops and post-workshop visits, toll-free access to a help desk located at Appalachian State University is available for teachers. Connection to the Appalachian State University computer network allows public school teachers and students access to share ideas and for collaborative learning activities.

Intended Outcomes

The intended outcomes of the TEAM Computer Skills Project are: (1) to prepare the approximately 35,000 K-12 students and nearly 2000 teacher education majors in the Appalachian State University/Public School Partnership with the requisite skills for employment in the workplace of the 21st century; (2) to provide opportunities for economic development by attracting business and industry to the state and region by providing a technologically skilled workforce; and (3) to provide much needed professional development for the approximate 2200 teachers in the Appalachian State University/Public School Partnership and methods faculty of Appalachian State University with the computer skills which will be required of all teachers by 1996.

Lessons Learned

The major lessons learned from the TEAM Project include: (a) the fact that professional development is best accomplished in areas where needs are identified by the participants and there is collaborative planning of activities to meet those identified needs; (b) the nature of computer skills dictates professional development on-site, on the hardware, using the computer platform in the participant school and with sufficient follow-up and assistance to allow for the transfer of theory to practice; (c) teacher education faculty involvement is critical so that the best practices in instruction and integration of the curriculum are modeled for future teachers; (d) time to learn, access to hardware/software, and sufficient technical support are essential elements for acquiring computer skills and transferring knowledge to real settings and (e) integration of technology into the existing curriculum as a tool for instructional support is essential. Segmenting the curriculum so that computers become another subject to be taught in an already burgeoning instructional day is impractical and an artificial learning structure.

Even with extensive review and experience with professional development, there are some areas where future plans and activities will be amended. The project reveals that (a) professional development for faculty (public school and university) requires more time than was provided. Time to experiment, explore and perfect has to be provided if teachers are to persist and use the technology; (b) assistance in making the best choices concerning the appropriate technology is extremely important. With so much software available, effective and efficient methods for product evaluation are requisite activities and (c) once the technological skills are acquired, assistance for helping teachers/faculty integrate the technology is essential.

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Austin Peay State University

Clarksville, Tennessee

21st Century Classroom Project

Institutions which educate teachers are challenged to train a new kind of professional—one who has the knowledge and skills to integrate technology in significant ways to meet the emerging needs of school populations. In this project, APSU is attempting to (1) develop sound programs for training future teachers with modern technology knowledge and skills, (2) establish experimental classrooms where new ideas, equipment and strategies are tested and (3) integrate technology into all instructional areas. Faculty are expected to model exemplary instruction, creative teaching, and effective use of technology, becoming mentors to students as they develop similar skills to use in the K-12 schools.

Intended Outcomes

The primary thrust of the 21st Century Classroom Project is to integrate technology and technological media into university instruction, assisting students in developing the ability to integrate technology into the K-12 environment.

Lessons Learned

The first lesson learned was that a single laboratory was inadequate. An additional experimental classroom to complement the current 21st Century Classroom and Developmental Supporting Laboratory is being planned. The need for more expertly trained faculty and space and equipment was evident. The project has revealed that faculty development is a slower process than anticipated. However, faculty development prompts even more expectations; once faculty learn, their level of need and participation is enhanced.

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California State University, San Marcos

San Marcos, California

Middle Level Teacher Education Program

The Middle Level Teacher Education Program prepares candidates to teach in ethnically and linguistically diverse middle grade schools. The program is designed to explicitly model innovative and exemplary practices identified by the middle level, teacher education reform movements, and by local school contexts. These practices include interdisciplinary team teaching (the teaching team consists of five university faculty and a middle school teacher who design and enact the program); integrated curriculum (course work is deconstructed and then reconstructed around four interdisciplinary units of instruction); and team assignments and assessment (jointly planned and assessed projects such as case studies and unit plans). Culturally and linguistically responsive instruction (teaching and modeling Specially Designed Academic Instruction in English, appropriate for English learners) is a part of the program. The program encourages service learning (candidates design and assist in community service projects for young adolescents) and authentic assessments (candidates create portfolios to characterize themselves as learners and teachers; team members conduct one-on-one interviews with candidates regarding the candidates' learning about educational reform). Other aspects of the program include the teacher-as-advisor (team members act as faculty advisors to monitor field experiences and general progress of the candidates); peer coaching (pairs of candidates coach each other during student teaching); and career-long professional development (team members and candidates attend and present sessions at professional conferences during the program).

Intended Outcomes

The Middle Level Teacher Education Program is designed to prepare candidates to teach in culturally and linguistically diverse middle grade settings. The program served as an example for other teacher education programs at CSUSM through its explicit modeling of innovative practices and close collaboration with partner schools.

Lessons Learned

The university has learned a great deal from its efforts to model exemplary practices in middle level teacher education, especially in the areas of team teaching and integrated curriculum. Through these two practices, knowledge about one's own and others' disciplines was greater

than might otherwise have been gained in a traditionally-designed program. The project required participants to demonstrate how to integrate theory and practice in individual professional lives. Through efforts to build innovative practices into the work, participants have experienced the social construction of knowledge explicitly and concretely. In a true apprenticeship model, participants have centered each other on modeling portfolios, case studies, etc. Twice yearly, evaluation data from candidates, middle school-based partners, and university faculty is gathered. Data from graduates has begun to be gathered about their practice in relation to their preparation in the program. Upon review of these data, curriculum and associated practices are revised every year in the search for more robust themes and practices. Most recently, service learning has been added to the curriculum and field experiences. As additional exemplary practices in middle level education and teacher education come to our attention, the program will continue to evolve. One of our challenges is to resist trying to incorporate every innovative practice encountered; rather, focus on the limits of a one-year teacher education program and of capacities for expending time and energy on this intensive work.

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Columbus College

Columbus, Georgia

Columbus Regional Mathematics Collaborative (CRMC) at the Center for Excellence in Mathematics and Science Education

Located on the campus of Columbus College, CRMC collaborates with the School of Education, department of mathematics and computer science, area businesses, local educational agencies, and parents to support area teachers and students. CRMC's three guiding principles are:

- *Equity*: Every student must have access to an excellent mathematics education.
- *Teacher Professionalism*: Teachers need continual upgrading of their skills and knowledge about mathematics, mathematics education, and current significant issues in education.
- *Assessment*: Teachers need opportunities to examine authentic, alternative assessment of their students' achievement.

Since its inception in 1989, CRMC has gradually extended its services to all area mathematics teachers as more funding became available. Through Eisenhower and foundation grants and contributions from the business community, CRMC serves approximately 1500 mathematics teachers in grades K-12 in 29 school systems and private schools in West Central Georgia and East Central Alabama within a 65-mile radius of Columbus. In addition to offering summer workshops that enhance teacher skills, competence and self-esteem, CRMC provides networking opportunities in subject-specific areas and sends out a bi-monthly newsletter of use-

ful information. Many of the schools in the Collaborative service area are rural, and teachers have little or no opportunity for networking and for enrichment experiences. CRMC also provides an extensive resource library consisting of books, videos, software, games and manipulatives, as well as the services of three resource teachers (elementary, middle and secondary) to help the teachers, either in their respective classrooms or in the Collaborative offices. Through its affiliation with the 16-city network of the Urban Mathematics Collaboratives, CRMC also provides opportunities for teachers to visit other collaboratives and attend UMC-sponsored leadership workshops. One of the primary aims of CRMC is to develop teacher leaders in the Collaborative area who will promote the NCTM standards and help colleagues to achieve their potential.

Intended Outcomes

The Columbus Regional Mathematics Collaborative (CRMC) seeks to improve mathematics education by supporting the professional development of teachers through continuing in-service programs that address improving student achievement.

Lessons Learned

CRMC has learned that teachers cannot do their jobs effectively in isolation. They need opportunities to network with their colleagues, to attend professional meetings, and to have access to adequate resources. CRMC makes every effort to provide these kinds of opportunities for teachers. The summer camps for students, for example, provide a nonthreatening atmosphere in which teachers can examine new styles of teaching and learning mathematics. Networking meetings serve as forums for teachers to share their successes, ideas and apprehensions.

CRMC plans to continue to design programs that respond to teacher needs and improve upon successful programs that are in place. The PRIME program for middle grades girls, which also has a teacher component, is now in its fifth year, and each year is improved. Since 1989, CRMC has sponsored Woodrow Wilson workshops for teachers, and each year makes every effort to select topics that are timely. Workshops are created whenever there is a need. For example, CRMC hosted its first Elementary Mathematics and Science Workshop in the summer of 1994, responding to the needs of area elementary teachers who were integrated into the Collaborative in the spring of that year. Such timely topics as assessment, hosting a family math and science night at your school, and the effective use of manipulatives as promulgated by the NCTM standards were all presented and enthusiastically received.

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Mississippi University for Women

Columbus, Mississippi

MUW Mathematics and Science Enrichment Program

The MUW Mathematics and Science Enrichment Program, via Mississippi Fibernet 2000, is designed to provide intense teacher training in content and instructional techniques to improve the mathematics and science instruction in grades five through eight. Participants are

teachers from nine districts which have been divided into three groups based on geographic accessibility to the three Fibernet sites: Columbus, West Point and Philadelphia. The superintendent of each district has chosen teachers from the district for training. A total of 49 teachers will participate in the six workshops scheduled during the school year. The five-hour Saturday workshops being conducted over Fibernet, originating at the Columbus site, include training in mathematical and scientific concepts and innovative teaching strategies. Each of the six workshops offers different information and training focusing on either mathematics or science or an integration of the two disciplines. Computer technology used in math and science is also included. Workshops are presented with a variety of delivery techniques, including the use of elementary students for the MUW Demonstration School. Workshop leaders also provide staff development sessions for individual districts and one-on-one instruction for teachers and students as needed.

A Teacher Resource Center has been established on the university campus and is circulated to each Fibernet site on a regular basis. The center houses a variety of mathematics and science resources, instructional materials, books, games and manipulatives. Teachers may use the center for planning or to check-out materials for use in their classrooms.

The program has been designed around objectives that include developing positive and enthusiastic attitudes towards mathematics and science; increasing the level of confidence in teaching mathematics and science; enhancing conceptual learning, reasoning and real-life problem-solving skills in mathematics and science; and increasing the knowledge base and teaching strategies of teachers in grades five through eight in mathematics and science.

Intended Outcomes

The intended outcome of the MUW Mathematics and Science Enrichment Program is to improve the mathematics and science instruction in grades five through eight in nine school districts served by the Mississippi Fibernet 2000. Teacher training in both content and methodology is provided through Saturday workshops held at three Fibernet sites. Resource materials are made available for use by teachers to reinforce concepts and strategies taught in the workshops and to help with implementation in the classroom.

Lessons Learned

The use of Fibernet 2000 interactive video is an effective strategy for modeling creative teaching strategies to teachers in areas too distant to participate in on-campus activities. However, the inclusion of facilitators at each site is critical to the success of the program. Teachers gain confidence as they receive immediate feedback regarding their use of hands-on materials and creative techniques.

A different manner for selecting participants would be used if starting the project over. Rather than having superintendents choose teachers to participate in the program, a plan of pre-program workshops would be developed to help teachers understand the purpose and objectives of the program. Materials would be provided for each participant to use rather than making materials available only on a check-out basis for classroom use.

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Northeast Louisiana University

Monroe, Louisiana

Louisiana Collaborative for Excellence in the Preparation of Teachers

The reform movement supports a collaborative, systemic approach to teacher education in the fields of mathematics and the sciences. The 1994-95 academic year marks the second year that this university has participated in the Louisiana Collaborative for Excellence in the Preparation of Teachers (LaCEPT), funded by the National Science Foundation. During 1993-94, mathematics faculty at the university were provided in-service training from education faculty and from external consultants on teaching methodologies at the university level. Emphases were placed on limiting the lecture style of presentation and increasing the inquiry and hands-on (manipulative) styles of teaching.

During 1994-95, a similar set of workshops will be conducted for physics and biology faculty at the university. Consultants from other universities and NLU education professors will conduct the sessions.

Ten experimental sections of Math 103 & 104 (Algebra and Applications) were established; students were taught using the reform methodology of teaching. These students were compared to a similar number in control sections taught in the traditional manner. An external program evaluator has been secured to conduct the data collection and analyses of data.

Intended Outcomes

The changes in the curriculum for the preparation of mathematics and science teachers have focused on the direct involvement of the respective content area faculty in changing delivery systems, co-advising teacher education students, and co-supervising student teachers. The intended outcomes are twofold: one, students will be better prepared in both content and pedagogy and two, university content area faculty will become more involved in the teacher training program.

Lessons Learned

University mathematics and science faculty, accustomed to the lecture style of teaching, are resistant to changing. They did change after becoming comfortable with the reform style presented.

Education faculty profited by their closer working relationships with content specialists. The mutual understanding of the relationship between content and methodology enhanced the presentations made by the education faculty.

Collaborative advising and supervision of student teachers by content area and education faculty strengthened the teacher education program as evidenced by feedback from students.

At this time, it appears the project would change little in its replication.

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University of New Orleans

New Orleans, Louisiana

Science for Atypical Learners (SAL)

SAL is a computer-retrieval system designed to enable third, fourth, and fifth grade and special education teachers to access science lesson plans prepared specifically for special needs students through an on-line, user-friendly electronic bulletin board system. The database, accessed directly from a computer through a telephone line, permits teachers to match behavioral indicators with topics in the natural sciences. Teachers may also select natural science topics and find a wide array of teaching strategies associated with specific learning characteristics. After selecting the desired lesson, teachers can print the lessons on the printer.

Learning behaviors addressed are poor reading skills, incomplete individual work, frequent off task behavior, frequent movement, poor verbal skills, poor math skills, poor memory for instructional information, and poor writing skills.

Teachers have competing needs of limited time and desire for every student to learn appropriate content. SAL allows teachers to provide lessons that have been created specifically for atypical learners with a minimal amount of preparation time. By downloading targeted lessons, teachers can meet the needs of their students within acceptable time frames.

Intended Outcomes

SAL is intended to provide teachers with easily accessible elementary science lessons that have been modified to meet students' special learning needs. Teachers can electronically select lessons targeted to students' specific behavioral indicators, download the lessons, and print the lessons. The intended outcome is that at-risk and special needs students will learn science in spite of behavioral characteristics that interfere with learning.

Lessons Learned

Teachers were initially apprehensive about using the computer, but the apprehension dissipated with practice and peer support. Teachers were more likely to use SAL lessons with the entire class because they and their students liked the "hands-on" nature of the lessons. Teachers were more likely to download lessons from home rather than school because of the dependability of their own equipment. Teachers found their students more engaged in learning science and achieving at higher levels. Fourth and fifth grade teachers used SAL lessons more frequently than third grade teachers because science is not a promotional subject for third grade.

Requiring principals to agree to provide a phone line and maintain their computer, modem and printer in good working order is a future goal. The project should work with all teachers in one school in one year rather than working with one grade level in multiple schools each year.

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6

Higher Education Collaboration with K-12 and Community

Ball State University
Muncie, Indiana

Delaware County Superintendents' Coalition

This reform effort is another phase of collaboration in the long standing relationship between the local public schools and Ball State University. Since effective partnerships are reciprocal in nature and in action, this endeavor is characterized by shared-decision making, community-involvement, and the "teacher-as-expert" model. This collaborative project will be the basis for expanded professional development on the implementation of advanced educational technologies for improving student learning, expanding curricula, and enhancing teaching and learning; thus modeling best practices for pre-service teachers.

Delaware County area superintendents and the dean of Teachers College, Ball State University, are exploring ways to adapt the "professional development school" using the following planning model.

The *first phase* of the project involves a needs assessment to determine the status of (a) available technologies, (b) knowledge of and use of technologies among personnel and students, (c) written plans (administrative, curriculum, evaluation, etc.) for the integration in all aspects of the operation of the schools, and (d) professional development activities.

The *second phase* involves the development of a "coalition strategic plan" detailing where the group of schools aspire to be by the year 2000.

The *third phase* focuses on cooperative grant writing to seek additional funding to implement the strategic plan. At the same time, collaborative professional development activities will be undertaken.

The *fourth phase* provides for the dissemination of research and development findings from the coalition efforts. Through reports, seminars and workshops, knowledge for effective technology integration will be shared with other school corporations.

The *"final" phase* will emphasize a continuing, long-term working relationship intended to continually evaluate, review and implement changing technologies and professional development needs and integrate them into the teaching/learning environment.

Intended Outcomes
The purpose of this reform effort is to build a county-wide coalition of superintendents with the dean of the Teachers College to provide long-range strategic planning and leadership for systemic, innovative educational change and technological advancement for nine school corporations.

Lessons Learned
Although the county schools and the university have a history of positive relations, this initiative is more structured, reciprocal, and forward-looking than previously shared activities. We have learned that commitment, mutual respect, and time of key administrators of both

institutions are essential to create the climate for public school teachers and university faculty to pursue innovations and change. To date, we are pleased with the direction and outcomes of such efforts.

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Black Hills State University

Spearfish, South Dakota

South Dakota Statewide Systemic Initiative for Science, Mathematics and Technology

This initiative engages teachers and administrators on all levels, elementary through postsecondary, in developing curriculum, materials, instructional strategies, and instructional models for integrating mathematics, science and technology in grades K-12. The collaboratives have included in-services, conferences, teacher activities on-site and through distance learning, and actual classroom experiences.

Black Hills State University's College of Education provides in-service opportunities for its partners, including Society, Science, and Technology; Project Wild (supplementary, interdisciplinary environmental education program); Calculators in K-12, Derive (mathematics computer program); Project Tree (interdisciplinary environmental education using trees as a focus); and Project Save (studies, awareness and values of the environment). It helps the K-12 partners in the development and analysis of assessment activities for students and teachers and in the evaluation of results from performance-based testing.

In establishing K-12 partnerships, schools were selected that were interested in systemic reform. A council of teachers, administrators and stakeholders was formed to develop goals and objectives appropriate to a specific school district. The format and requirements were determined by the National Science Foundation proposal guidelines, but there was sufficient latitude to individualize many requested activities and strategies. The focus of the partnerships was on in-services that produce useful teaching and learning techniques and provide pre-service opportunities for the integration of science, mathematics and technology.

The other major effort of the university and its partners was the formulation of the *South Dakota Mathematics and Science Benchmarks*, a hands-on approach to the teaching and learning of science and mathematics. The Benchmarks venture involved parents, students, communities, business, industry, policy makers, and all educational entities. The product is used to promote alternative teaching and assessment strategies with realistic applications and emphasis on communication skills.

Intended Outcomes

Collaborative partnerships between Black Hills State University and 20 school districts have been formed to share resources and exchange information on reforming the teaching of science, mathematics and technology, from kindergarten to postsecondary school. The partner-

ships are funded through a National Science Foundation grant to support a statewide systemic initiative.

Lessons Learned

In establishing K-12 partnerships with universities, it is essential to select schools that are committed to systemic reform. Further, it is essential to form advisory councils reflective of all parties: teachers, administrators, stakeholders. Finally, even when following the format and requirements of a grant-making entity, maintain some degree of individualization to meet requested activities and strategies.

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Boise State University

Boise, Idaho

Assisting Schools in Developing Technology Supported Classrooms

Educational technology was chosen as a vehicle for reform because of two recent events. In 1992, the Idaho State Board of Education issued Schools for 2000 and Beyond: An Action Plan for Idaho, which was developed from input from hundreds of individuals, business groups and agencies. One of the nine goals was the development of "High Tech Schools." Additionally, the 1994 Idaho Legislature enacted the Idaho Technology Initiative, which provided technology funding for selected public schools and for Colleges of Education to assist those schools in entering the world of computer technology.

Though several members of BSU faculty had worked for a number of years to prepare pre-service and in-service teachers to use computer technology in their classrooms, progress had been slow. The recent attention paid to technology by the State Board of Education and the new funding by the 1994 Idaho Legislature made it possible to move educational technology to a primary position in our educational reform efforts.

The goal of the reform is the development of technology-supported classrooms in Idaho public schools. This required several adjustments. Every BSU Teacher Education pre-service teacher is required to become competent in the use of basic computer tool software and the integration of these tools into the regular school curricula. Their instruction occurs in technology-supported classrooms that model the same five-computer configurations being promoted in area schools. Similar in-service experiences (through on-site workshops) for teachers/administrators are provided by the university. It also assists them to develop their own in-service technology training programs.

BSU provides technical support to area teachers/administrators through on-site visits and a telephone hotline service. The university provides a computer host (Merlin) to connect area classrooms through a synchronous conferencing, and trains the teachers and children how to communicate with students in other classrooms. A synchronous computer network to connects first-year teachers with one another and with BSU faculty members. Area classrooms

are provided computers through an ongoing computer donation program through which the university collects, reconditions and recycles used computers donated by area businesses and agencies.

Intended Outcomes

The intended outcome of the reform is the development of technology-supported classrooms in Idaho public schools. Because funding is not sufficient to cover all the schools in Idaho, part of the agenda is to (a) empower school districts to help themselves by training teachers to help other teachers, and (b) to provide computers to needy schools through a computer donation program.

Lessons Learned

Computer technology is very costly, and the cost of purchasing equipment soon becomes a small part of the total cost. Installing and maintaining computers, peripherals, software, and networks—and keeping them operating—is labor intensive and requires highly skilled technicians.

Providing computers and peripheral equipment is useless without commitment on the part of their potential users, and without a good training program. Such a program requires major planning, adequate lead time, and adequate time for staff training. These are major challenges in developing technology-supported classrooms.

While many experienced teachers are intimidated by computer technology, many others are eager to learn when given the opportunity. Children in the classroom often learn quickly to use the equipment, and these students can help teach their teachers.

Technologically proficient graduate assistants can provide very cost-effective service. Technology graduate assistants constitute a highly competent crew that provides much of the on-site training and telephone hotline service. The program would be much smaller and less effective without these excellent graduate assistants. Recruiting excellent technology graduate assistants requires a continual effort to identify and attract the best people available. Before being assigned their tasks, the graduate assistants still need intensive orientation and training by the program director.

The major difficulty has been that of over extending the resources. The demand for assistance was much more immediate and unending than expected. Thus, the university has had to renege on some commitments and limit the number of schools served.

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California Polytechnic State University (Cal Poly)

San Luis Obispo, California

Coalition of Partner Schools

The reform/renewal process begun at Cal Poly is linked to the values embedded in the 19 postulates delineated by Sirotnick, Soder and Goodlad. The change agenda embedded in the postulates is quite comprehensive and emphasizes the moral dimensions of teacher education in an emergent democracy characterized by extraordinary wealth and pervasive (persistent) inequality.

Key elements in the restructuring/renewal process at Cal Poly include developing an integrated five/six year pre-service teacher education program which revolves around learning experiences carried out in a series of partner schools. Future teachers (resident teachers) are assigned to a school and community for an entire year, as opposed to one or two separate classrooms. Assigning students to whole schools as part of a cohort which allows interaction with a school site team led by the school site principal. The program emphasizes the study of conversational/pedagogical Spanish and Hispanic (community) culture(s) while at the local school. The project also involves the resident teacher cohort in on-going research which is led by the school site principal and university facilitator.

Intended Outcomes

The goal of the coalition, which is aligned with Cal Poly's University Center for Teacher Education and the Colleges of Arts and Sciences, is to create a Center of Pedagogy. This center will promote simultaneous renewal at all collaborating institutions, which in turn will create strong teacher preparation (and in-service) programs which are constantly improving.

Lessons Learned

It is important to leave time to write proposals to seek external support for the project. Further, it is important to provide released time for a university facilitator (who will be the chief worrier for a school site for a period of three years). It is effective to link schools across school district lines. Project personnel should think in terms of a five-year plan and to keep this plan in constant view. That plan should be based on a strong philosophical framework such as the one laid out by John Goodlad. Finally, it is important and useful to link the goals of the five-year plan to the recruitment of new faculty and the assessment of new and old programs.

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California State University, Fresno

Fresno, California

Fresno Family Counseling Center

The rationale for establishing the Fresno Family Counseling Center was based on the recognized need for addressing school related problems which are directly tied to conditions within

the home. A common goal for public school professionals, family counselors and child welfare advocates is helping children succeed. Recognizing the need to form a partnership between the P-12 schools and the regional university, the Fresno Family Counseling Center was established.

The unique feature of the Fresno Family Counseling Center (FFCC) is that it provides low-cost family counseling services to the local community, while also providing an excellent training site for students intending to become licensed Marriage, Family and Child Counselors (MFCC). This venture exemplifies the university's commitment to regional and inter-professional collaboration. While there are many counseling agencies available in the community, often the financial cost is prohibitive for low-income families. In response to the need for a low-cost counseling service, the Department of Counseling and Special Education and the Fresno Unified School District agreed to cost share the operation of the center. The university agreed to provide the faculty members to administer the center and supervise counselor trainees while the school district provided the maintenance. The counselors are advanced level MFCC graduate students who are enrolled in a practicum course. They serve one semester providing counseling services to district-referred students/families and to the community. Most of the client population is comprised of single parent families whose concerns range from behavioral problems (acting out/oppositional conduct) to mood and anxiety disorders. For nine years the Family Counseling Center has provided services to more than 875 individuals at very low or no cost. This joint collaborative venture has made the Fresno Family Counseling Center a community site base for many families.

Intended Outcomes

The intended outcome of the Fresno Family Counseling Center is to provide affordable, quality services to children and families within the university's service area. The center is also a counselor training facility which prepares graduate students to deal effectively with current issues confronting children and their families. The Family Counseling Center provides a full range of marriage, family and child counseling services to assist families in clarifying issues relate to social, marital and developmental adjustments.

Lessons Learned

The Fresno Counseling Center was one of the earliest partnership efforts of the university, the community and the local schools. Recently, the university has provided new facilities for the School of Education and Human Development, which include a Human Development Center. This comprehensive center links the university, schools and community by providing services that attend to the needs of children and their families. The Fresno Family Counseling Center, while continuing to operate at a community-based site, is investigating ways in which to integrate family counseling with the Early Childhood Education Center, parent resource area, and assessment services, all of which support vulnerable children, youth and families. One of the challenges currently facing the FFCC is providing more attention, when making referrals, to the "pre-counseling phase" and other outreach/educational activities, i.e., in-service experiences for teacher/administrators. In the last nine months 88 families and students were served. Approximately 50 percent of clients could not pay the standard low rates, thus suggesting that a definite need for low cost counseling services continues to exist. Many parents feel "overburdened" trying to manage children and recognize the need for counseling services. This is the need that FFCC is addressing through collaboration with the school district.

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California State University, Fullerton

Fullerton, California

Interprofessional Training Program

The Interprofessional Training Program is a collaborative effort of California State University, Fullerton and the Anaheim Union High School District. Modeled after the concept of a Professional Development School, ITP moves beyond the traditional emphases of preparing prospective teachers, providing professional growth opportunities for secondary school educators and university faculty, and enhancing student learning. To prepare the second generation of professionals in careers serving youth and families, three additional components were added: The preparation and professional development of prospective social and health service providers in the real context of schools, the enhanced preparation of teachers, and the improvement of the integration and delivery of services to youth and their families.

ITP rests on the assumption that for school-based integrated services to be successful, professionals in collaborating services must develop a common set of beliefs regarding the needs of youth and families. Teachers must become aware of the full array of services available to help youth and families; service professionals must situate their programs within the context of the classroom; and both groups must understand the communities in which they work. To achieve these goals, CSUF participants are placed in schools in the Anaheim Union High School District. While working as preprofessionals in their disciplines, they collaborate across disciplines and professions to more effectively address the academic, health and social needs of secondary students and their families.

Intended Outcomes

This program has been established to provide an interprofessional, interdisciplinary education program for health and social service interns and secondary teacher candidates at California State University, Fullerton. It couples a teacher credentialing program with undergraduate and graduate programs for future family services professionals. The goals of the program are: (1) to provide health and social service interns with meaningful experiences in secondary schools; (2) to better prepare pre-service secondary teachers to work within schools using integrated services models; and (3) to improve secondary school-based integrated services.

Lessons Learned

This program has implications for practice and policy that reach far beyond traditional boundaries of teacher education. First, it was learned that practicing teachers are not currently aware of services available to students with special needs, and often feel frustrated as a result. Second, although pre-service teachers need this information, it should be presented in a manner that does not overwhelm them. Instead, they should understand that they can collaborate with health and social service providers. Structures for service providers and pre-professionals to work in school settings are not always in place and often must be developed and instituted. Finally, skills for interprofessional collaboration must be developed by

all involved. As a result of these three findings, the project design was revised to include a strong in-service component for teachers and other educators and several activities that allow student teachers and interns to collaborate with each other as well as with master teachers and agency personnel. One example of the latter is an assignment where participants identify, refer and follow-up on a student who is in need of a support service.

We have also discovered rich opportunities for collaborative projects. Personal and professional development have occurred as we collaborate on project planning and developmental activities, including the development of a Field Experience Handbook; the presentation of joint student teacher and health and social service seminars; the in-servicing of district teachers and service providers; and the development of project materials for dissemination.

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Project START (Support and Training to Achieve Retention of Teachers)

The close relationship between personnel at California State University, Fullerton and the Fullerton Joint Union High School District is a key to the success of Project START. The university and the district collaborate to integrate the teacher's professional education through a joint emphasis on essential teaching skills and a common conceptual framework for defining effective teaching skills. This integrated approach to teacher education extends the formal process of training from credential course work through the first two years of teaching, and enhances the mastery of teaching skills through the use of a consistent focus.

Project START currently serves 36 beginning teachers in the Fullerton Joint Union High School District and 180 student teachers at California State University, Fullerton. Funding for this Beginning Teacher Support and Assessment program is provided through a $217,250 grant from the California Department of Education and the Commission on Teacher Credentialing.

Support activities for beginning teachers in Project START include a graduate class on "Reflective Teaching Practices," training in culturally responsive teaching, monthly discussion groups, reflective journals, and peer coaching. Groups of one peer coach and two or three beginning teachers work together throughout the year at each of the school sites. During scheduled release days, members of the triads observe one another's teaching, conduct teaching observations with Praxis III: Classroom Performance Assessments, and reflect on teaching practices. Assessment activities for beginning teachers focus on the use of Praxis III and the development of teaching portfolios.

Support and assessment activities for student teachers in Project START include the use of Praxis III domains to frame the study of teaching, the development of teaching portfolios around these domains, and the use of Praxis III by trained university supervisors. In addition, one trained student teaching coach at each of the six Fullerton comprehensive high schools provides additional Praxis III assessments.

Intended Outcomes

The project provides a cohesive and comprehensive system of support for beginning teachers and assessment for beginning teachers and student teachers. It is designed to increase the retention of teachers and the quality of instruction by extending teacher training through the induction years, and by articulating pre-service and in-service teacher education programs.

Lessons Learned

Project START was implemented in August of 1994 with the start of the current school year. Beginning teachers, experienced teachers, administrators, student teachers, and university faculty have responded most positively to the design and implementation of the program. Project START is a powerful intervention for beginning teachers and student teachers because it encompasses a broad spectrum of support and assessment activities. While both beginning teachers and their support providers find the project to be time-consuming, they also find that their efforts have already yielded great rewards. Beginning teachers are very appreciative of the level of support that has been provided.

The selection of effective support providers is an essential element of success for beginning teacher support and assessment programs. Support providers must be able to model effective teaching practices and identify these practices in the performances of the beginning teachers. They must be able to provide a nurturing, supportive and nonjudgmental climate for the growth of beginning teachers under their tutelage. The ultimate success of support providers is enhanced through intensive training in classroom performance assessments and support provider techniques.

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CSUF's Professional Development Schools Project

The project centers on increasing collaboration between the university and elementary educators to improve teacher education. CSUF's Professional Development Schools project is a grassroots effort initiated in 1989 by two local districts—Fullerton and Placentia-Yorba Linda—that has grown to include sites within three other districts. Participating elementary sites within these districts house large cohorts of pre-service teachers (4-6). They also offer expanded opportunities for practicing teachers to work with pre-service teachers. These include the traditional master teacher role, as well as opportunities to serve as demonstration teachers, mini-seminar leaders, presenters at university methods course sessions, and informal support providers. By increasing participation for site teachers, the project encourages shared ownership for the quality of pre-service teachers' preparation. Personnel at the sites also work closely with university faculty to demonstrate the close connection between knowledge and excellent practice. The demonstration-application lesson cycle, whereby pre-service teachers observe site teachers modeling strategies discussed at the university and then prepare and teach similar lessons, is a prime example of the close link between knowledge and practice. The project offers opportunities for pre-service teachers to serve in professional roles as part of the school culture. It also includes university faculty in site efforts to further develop-

ment for in-service teachers. Site personnel work closely with university faculty to determine jointly the future goals and directions of the project.

Intended Outcomes

The aim of CSUF's Professional Development Schools Project is to reshape teacher education by expanding the roles and decision-making capacities of K-6 school site personnel and by redefining the relationship between the university and school sites. The intended outcome is more thoroughly--and more thoughtfully--prepared pre-service and in-service teachers who may better educate today' s children.

Lessons Learned

Evaluations of the project have revealed that pre-service teachers feel better prepared to direct student learning and to serve in the other vital capacities required of classroom teachers. Administrators hire a large number of PDS graduates because principals feel that they, and other site personnel, have nurtured PDS pre-service teachers' development and have witnessed the strength of their preparation in a variety of settings. In short, the PDS project has allowed pre-service teachers to expect to collaborate with peers and other professionals in order to teach well, to become analytical in studying their own teaching, and to develop expectations for professional service sometimes lacking in pre-service programs. Additionally, in-service teachers report increased commitment to the profession of education through their participation in teacher education, a sense of empowerment, and a sense of renewal for their own growth as teachers.

Sustained collaboration requires large amounts of energy from participants in both settings, the university and the school sites. Close and careful examination of the expectations of the participants from different sites, frequent and open communication, and the willingness to adapt and change the program are all required to assure the project's continued health. Finally, communication with K-6 practitioners at all levels is critical to the project's success. Even grassroots efforts require ongoing support at the district level, and PDS participants at the sites and university need to play a role in decisions regarding changes in administration to ensure full commitment to the project.

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California State University at Los Angeles

Los Angeles, California

The Los Angeles Accelerated Schools Partnership

The Los Angeles Accelerated Schools Partnership is composed of the Los Angeles Accelerated Schools Center, The Accelerated Charter School, The California State University Charter School of Education, and local business and community members. The project has made a significant and positive impact in addressing the chronic underachievement in students in South Central Los Angeles, as it has for students throughout the country. To sustain and

increase these positive results, this type of model must become institutionalized and the infrastructure of the public school must change. The partnership establishes a powerful coalition between private sector and public sector agencies to create a seamless educational infrastructure from preschool to higher education.

The Accelerated Charter School is a K-6 approved state charter school. The Charter Schools Act of 1992 allows 10 schools in any district to become academically and fiscally autonomous to increase student performance, teacher and administrator accountability, and parental involvement. The Accelerated Charter School bases its reform effort on the Accelerated Schools Model, which views all students as gifted and talented, and is constructed on three guiding principles: Unity of Purpose, Building on Strengths, and Empowerment with Responsibility. The fundamental set of values underlying the principles focus on establishing integrated curricular, instructional and organizational changes. A central value is that the school site is the center of expertise. The Accelerated Schools process builds the capacity of school communities to reach their unique visions.

Intended Outcomes

The purpose of The Los Angeles Accelerated Schools Partnership is to launch the first Accelerated Charter School in South Central Los Angeles by teaming the School of Education and the Los Angeles Accelerated Schools Center with public and private sector agencies to introduce a bold new model for education and training. A primary goal of the partnership is to change the infrastructure of the public school as well as the university by operating the Accelerated Charter School as a Professional Development School for the CSLA Charter School of Education.

Lessons Learned

Change and reform are extremely worthwhile, yet are slow and sometimes painful processes. As school communities began working closer with each other, conflict is a natural by-product, and must be worked into the model as a healthy outcome, and not a cause for alarm. School staffs are not used to working with parents, community members, higher education, and the private sector as equal partners, yet these types of partnerships are vitally needed to provide the legitimacy that schools now lack. Another lesson is that change, to be truly effective, must not be piecemeal, but must ultimately be institutionalized as a true commitment to that change or reform. Powerful interventions are often implemented with proven results, but little effort is made to expand or permanently establish the intervention. There is a need to build on interventions and link resources to maximize their effectiveness. Such has been the goal of the current partnership. This model has been refined to include conflict resolution strategies as part of the overall organizational shift. Project leaders also are working to establish career ladders for public school teachers for their professional development efforts during the reform. Much more acknowledgment and support must be given to schools in the midst of restructuring.

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California State University, San Bernardino

San Bernardino, California

Learning Handicapped Intern Training Project

As a way of dealing with the extreme shortage of special education teachers in San Bernardino and Riverside counties, an alternative credentialing program in the specialization area of learning handicapped (LH) has been approved by the Commission on Teacher Credentialing and implemented since 1991. The program's purpose is to provide a quality training program in which the intern completes the LH credential while being employed full-time as a teacher of pupils with mild and moderate disabilities. Unique features of the program include ongoing supervision, guidance and support by a university supervisor and district special education support staff; frequent meetings of university and district personnel; participation as part of a cohort in course work and seminars; a practical sequence of course work, including a pre-employment methods course; contract teaching position in same classroom for two years of the program; credit for each of two years toward tenure; and six day per year of release time for interns to take course work and/or observe in model classrooms. The program consists of a total of 72 quarter units and most requirements for master's degree upon program completion. There is an emphasis on bilingual special education issues. Tuition and fees are provided.

Intended Outcomes

The project is an attempt to alleviate the severe shortage of qualified special education teachers in our area through a quality preparation program. It is designed to provide a quality on-the-job training program in which interns participate in a highly supervised program with ongoing guidance and mentoring from university faculty and school district staff. It provide a quality on-the-job training program in which there is an ongoing link between what is taught in the university classroom and what is practiced in the field, e.g. the valuable link between theory and practice. Further, it is designed to provide a quality training program in which the district's personnel and the university staff engage in ongoing collaboration to ensure that interns can receive the guidance and support needed by beginning teachers.

Lessons Learned

Completing course work while being employed full-time in a special education setting has the advantage of truly providing that important link between practice and theory. The supervisors observe application by interns in "real" settings of what is being taught in university course work.

Using a cohort format has been more valuable than expected. The networking and support from the peer group has been so important to the success of the program.

It is important to have one person oversee the program. The interns, the university supervisors, the school district support staff, and the principals need to have access to the coordinator. A coordinator who can facilitate collaboration between all parties involved is a necessity.

In the future, the program will try to arrange scheduling so that there would be more interaction between first year trainees and second year trainees. Recruitment audiences will be broadened to attract a more diverse pool of applicants.

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Colton Cluster Project

Within the first five years of teaching, many teachers drop out. In part, this is due to their unexamined expectations of what is involved in being a teacher and their unfamiliarity with the nature of schools and the students they will meet. In addition, once in the school, there is little systematic support for the beginning teacher. The Colton Cluster Project combines the knowledge and abilities of the university faculty and the school personnel, places teacher candidates in a school for a complete academic year, and supports them in their first year.

The Colton Cluster Project is an on-site, teacher preparation program that provides for the integration of theory and practice through public school classroom experience occurring simultaneously with university course work. University faculty, district personnel, principals and resident teachers work together to provide a consistent, supportive program for teacher candidates during their pre-service and intern years.

In the first year, candidates learn about children, school programs, curriculum and instructional techniques. University courses help direct and focus observations and practice; elementary schools and classrooms provide opportunities to observe and put learning into practice. Students have a "home" school with a designated classroom and visit other schools to observe specific programs and work with district coordinators and mentors in specific disciplines. This allows them to look beyond their own classroom and introduces them to the support system available to teachers. Candidates begin the year as observers and gradually increase their responsibility so that by the spring they become the lead teacher in a classroom. As intern teachers during the second year, they continue with university seminars and a university supervisor observes their classroom, thus continuing the support and learning provided in the first year.

Intended Outcomes

As a result of close collaboration between the cooperating schools in the Colton Joint Unified School District and the cluster faculty from the Department of Elementary/Bilingual Education Department at CSUSB, the program intends to provide teacher candidates with a consistent, supportive teacher education program. With such a program, teacher candidates will be more knowledgeable about their role as teachers as well as more aware of the structure of schools, the nature of students, and the social context in which they will work. They will become advocates for children and change agents.

Lessons Learned

This is a new program, although the second cluster program for the department. The design differs from the first to appeal to a different group of our students and to provide support

during the first teaching year. Based on results of the first cluster, there is evidence that the candidates are stronger, better prepared teachers; similar results are expected from this program.

Communication is one of the keys to the success of individuals and of the program. The structure of teacher education programs does not provide for consistent communication between university faculty and classroom teachers. This is a critical lack. Therefore forums for discussion: whole program meetings; school meetings with university faculty, principals and teachers; university faculty meetings; and individual meetings with candidates are provided. Each of the four university faculty is a liaison to one or more schools to provide a direct university link.

A program such as this is not a "surface" program. Although the teacher education program is strong and addresses the state standards, there are areas like interpersonal relationships, conflict resolution, and societal, political and economic issues that need to be addressed.

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California State University, San Marcos

San Marcos, California

Distinguished Teacher in Residence

The Distinguished Teacher in Residence Program is a university and public school partnership that provides a very practical link between university course work and the realities of classroom teaching. Distinguished Teachers in Residence are chosen from a consortium of participating school districts by a committee of university and public school personnel. They spend two years on loan from their school districts as full-time faculty in the College of Education. These teachers perform the complete range of teacher education faculty functions, including teaching, supervision, service and research in collaboration with permanent faculty. This program is funded jointly by the university and cooperating school districts. Since school districts assist with the teachers' salaries, the program actually allows the university to make available to the participating school districts equivalent units of assigned time for faculty members of the university to assist districts within their areas of expertise. This unique aspect of the program demonstrates tangibly the partnership between the university and the schools. When Distinguished Teachers in Residence complete their two-year service, there is an understanding that they will return to their schools and share their expertise and enhanced skills with the teachers in their district.

Intended Outcomes

The intended outcome of the Distinguished Teacher in Residence Program is to provide university students, who are part of the pre-service program, access to exemplary public school educators who serve in the role of course instructors and supervisors. This program also supports on-going university and school collaboration as university personnel serve the public schools in consultant and research capacities.

Lessons Learned

While the Distinguished Teacher in Residence Program has been quite successful and has received positive evaluations from University and K-8 public school personnel alike, there are areas where positive changes have begun.

The role of the Distinguished Teacher in Residence took some time to define. Initially during the first two years (1991-93) there was some discussion as to the responsibilities of the teacher in residence. Would they only supervise? Which, if any courses should they teach? What would be their role in faculty governance? These questions were raised and debated. Certainly the first Distinguished Teachers knew of the dissension and experienced feelings of exclusion at times. The university faculty eventually saw the responsibilities of the Distinguished Teachers to be not unlike their own. The second wave of Distinguished Teachers were given full opportunities to teach courses in their area of expertise. They were able to vote and participate fully in faculty governance. They were even given formal and informal mentors among university personnel who invited them to work collaboratively in the area of teaching and/or research.

The area that still needs to be addressed is the role of Distinguished Teachers Emeritus. In order to take full advantage of the school and university partnership, a continuing relationship needs to be established. Should these "retired" Distinguished Teachers continue to teach as adjunct faculty? Might their classrooms serve as research laboratories? Should they work on university committees? These questions haven't been addressed and are dependent on the expertise and interest of university faculty and the Distinguished Teachers in Residence. However, vehicles need to be put in place that make this type of collegial relationship customary and welcomed.

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California State University, Stanislaus

Turlock, California

Educating Homeless Youth: A Collaborative Community-Based Approach

An African proverb states "It takes a whole village to raise a child." This concept has also been proven true in the development and growth of a School for Homeless Children, the Transitional Learning Center (TLC). The program demonstrates the importance of university partnership, interagency collaboration and community support in providing multiple services for at-risk students.

The goal of TLC is to provide for the physical, emotional and educational needs of homeless children of San Joaquin County, and raise community awareness of the plight of homeless children. Approximately 15 other community agencies, along with numerous civic, church and educational organizations, collaborate to provide an extensive range of educational and social services to children and families. These services include an extensive educational pro-

gram; counseling and psycho-educational testing; medical, dental and vision care; food, clothing; and numerous other services.

The collaborative aspect of the program allows for TLC to provide a wide range of services. CSU Stanislaus students develop curriculum and teach at the school for clear credential credit, via the course, "Working with At-Risk Students in a Community School," which was developed for this purpose. Student teachers can also be placed there for one of their field work assignments. Psychology and sociology students and interns may do field work at TLC, as well as provide counseling under the supervision of the department staff.

This collaboration enables students to receive valuable instruction and hands-on experience in dealing with the multiple needs of students at-risk and also contributes greatly to curriculum development. The children at TLC receive much more personal attention and individualized instruction, thus creating a "win-win" situation for all concerned.

Intended Outcomes

The project is a partnership with CSU Stanislaus, San Joaquin County Office of Education, St. Mary's Interfaith Dining Room and numerous community agencies which will provide extensive services to homeless youth in a credentialed K-6 community school. The purpose is to meet the varied educational, emotional and psychological/social needs of homeless children; provide a multicultural training environment for CSU Stanislaus students; and serve as an avenue for conducting research on the issues inherent in the education of homeless youth.

Lessons Learned

TLC demonstrates the importance of interagency collaboration in providing essential services to homeless youth in times of scarce resources. University students gain valuable experience working with at-risk students in a multicultural setting. The school provides an avenue for community consciousness-raising, volunteerism, and an opportunity to conduct research on the education of homeless youth. It is important to provide for the basic needs of the students, including counseling and support services to the parents, as well as intensive individual and small group instruction.

The program also demonstrates the importance of parent outreach and follow-up services for the children after they leave the school. A bi-monthly parent support group and parent skills program was started in September. Curriculum related to parenting, money management and support services is presented on a rotating basis. Teachers also need to perform monthly shelter and motel visits to maintain regular contact with parents.

Research shows that after the students left TLC, their attendance in public schools was sporadic. CSU Stanislaus student assistants are now being used to accompany the family to the new public school, after housing is obtained. The intern follows the student's progress and attendance for one month, noting the social/emotional status of the students. Behaviors recorded include class participation, alertness/attention, personal appearance, anxiety and interaction with peers. Students need ongoing support when they re-enter mainstream schools and more effort must be focussed in this area.

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Castleton State College

Castleton, Vermont

Developing a Distance Learning and Regional Telecommunication Network for Schools

The focus of this project is the establishment of the Rutland County Telecommunication and Distance Learning Network, an infrastructure to permit 35 schools, 791 educators, and 10,036 students to communicate with each other, have access to the Internet, and both produce and consume educational television programming. The first phase of this project, already funded and designed, will provide a network of computers, interconnected via phone lines with access to the Internet, to provide exciting opportunities for K-12 students to work with each other, teachers to network on matters of curriculum, and administrators to collaborate on challenges of mutual concern. The second phase, just now being worked on, seeks to establish a regional educational television cable network. This will permit courses to be transmitted from the college to area high schools and from area schools to each other; the re-transmission of satellite-down linked programming; the sharing of videotape and other instructional media resources; and the broadcast of continuing education course work and programming. The third phase of the project, still a year or more away, will introduce point-to-point video conferencing capability.

Intended Outcomes

The Network is engaged in an effort to create a data network connecting students and teachers of the county's 35 schools with each other and with students and faculty at the college; give students and faculty at these 36 institutions access to the Internet; create a regional educational television cable network interconnecting the college and six area high schools; and, through this cable television network, provide satellite down-linked transmissions, locally generated curricular programming, in-service education, the distribution of videotape and other instructional media, and regional forums on educational themes.

Lessons Learned

Vermont is a poor state and the schools of the region, including this state college, have countless resource needs. The initial intent was to apply for a major grant, but project planners realized that the human resources to accomplish that were missing. The individuals on the distance learning committee (teachers, principals, superintendents, deans and others) had precious little time to devote to these collaborative undertakings and were unable to do the research and writing associated with producing a major grant application. After a number of false starts, project collaborators applied for a planning grant; the results of that application have not been announced. Finally, it was decided to tackle the most manageable project which would represent, nevertheless, an important beginning. This orientation permitted staff to plan the regional telecommunication network, which was recently funded for the very modest sum of $28,708. With this success, project planners now feel emboldened to tackle the next phases of the work.

Probably the principal thing learned was to not get preoccupied with the need for funds for some of the more attractive systems of distance learning. Working with extant resources, moderately knowledgeable people who were encouraged by a growing interest among leaders of area schools decided to collaborate whenever possible and start the network..

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Central Missouri State University

Warrensburg, Missouri

CUBE—Creative Union of Business and Education

In 1991, a partnership dialogue group was formed in Warrensburg, Mo., to promote a high-quality educational environment through communication and interaction between educators and business persons.

At each of the two or three meetings a year, business persons, PK-12 educators, and university teacher educators attended, meeting in groups of seven to 10. During the fifth group meeting, a decision was made to name the group CUBE (Creative Union of Business and Education).

A mission statement was developed and approved, which states that CUBE seeks to foster trust, respect and support among its members and to facilitate their understanding and agreement on goals for and methods of preparing students to work and learn in a highly interconnected global environment.

Our goals are to encourage and provide opportunities for employers, PK-12 educators, and university teacher educators to share their perceptions of the educational needs of students; to develop a common base of understanding among the members as to these needs; and to develop a network of members and contacts for the sharing of expertise and service. CUBE also determined to identify and implement specific actions to meet the needs of students; to develop a comprehensive action plan to guide CUBE in its mission; to share with the community CUBE's mission, goals, actions and recommendations; and to encourage the involvement of new CUBE members from the community.

Intended Outcomes

This Creative Union of Business and Education (CUBE) is designed to foster greater awareness, collaboration and communication among business/professional people, PK-12 educators, and university teacher educators so that students will be better prepared for postsecondary education and the world of work.

Lessons Learned

During the series of CUBE meetings spanning four years, these have been the major items of discussion:

1. What would Warrensburg, Mo., employers expect their employees to know and be able to do?
2. How can entry level skills of postsecondary students and employees be improved?
3. How can educators and business persons communicate better and support each other better?
4. How can TQM (Total Quality Management) and CPI (Continuous Process Improvement) help us?

Much has been learned about what postsecondary students and entry-level employees should know and be able to do. They should be punctual, have common courtesy and a good work ethic along with proficiency in mathematical, verbal and written communications, critical thinking, decision-making, and follow-through skills.

Progress has been satisfactory. More meetings per year, rotating leadership, involving regional communities, and more secretarial/computer support would be helpful.

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Central Washington University

Ellensburg, Washington

Evolving Professional Preparation from Teacher Training to Teacher Development

Central Washington University, in collaboration with one of nine Washington State regional Educational Service Districts, a community college and three local school districts, has established a cooperative professional preparation program which provides both pre-service and in-service teachers with a seamless educational transition from the early secondary school years through the master's degree and beyond. This project demonstrates one model where a professional education program is articulated across multiple educational levels. It also reflects a fresh look at how teachers are prepared for life-long teaming.

There are several components of the collaborative project which can be used in other programs within the state and across the U.S. One of these is the creation of a high school internship program—similar to a teaching academy—which blends Central Washington University's traditional Education Week activities with systematically arranged clinical experiences as teacher assistants in diverse school settings. These practicum experiences, in conjunction with planned seminars and individual training sessions, provide an appropriately sequenced early introduction to teaching. High school students successfully completing both their practice and the seminars, and subsequently enrolling in the teacher preparation program at Central Washington University, are not required to re-enroll in an introductory course at the collegiate level. This secondary school component alone signals a paradigm shift in teacher preparation—a departure from the traditional concepts of upper-division or graduate-level teacher education to a different line of thinking which can be described best as teacher development. By beginning the formal preparation of teachers while still in high school, the consortium model links the natural, productive growth cycles of late adolescence and

young adulthood to the development of attributes believed essential to exemplary teaching. By identifying promising students prior to their entry into postsecondary education, it is possible to help them prepare for successful college experiences in teacher education. Upon occasion, this includes diagnosing any individual weaknesses before they become impediments to college admission, and initiating remediation at age-appropriate junctures in their development.

The consortium also sponsors professional development opportunities for in-service teachers in the North Central Washington region, both as non-credit courses and seminars, and as credit courses and graduate-level programs. These in-service educational opportunities further enhance the natural development of teachers in the extended framework of life-long learning. They also establish excellent working relationships with local teachers who would like to serve as cooperating teachers for future cohorts of undergraduate CWU students. To help establish cooperative networks and mentoring systems for teachers at all stages of their careers, recently retired master teachers are employed as part-time tutors for future teachers at the high school and community college levels. As appropriate, they also serve as substitutes for full-time teachers needing to be away from their classrooms for professional development activities. These retired teachers strengthen the overall program by contributing their considerable talents to the development of both fledgling and mid-career professionals. In so doing, they employ a level of expertise which the teaching profession can ill-afford to lose in the overall context of lifelong learning. The six institutions which have collaborated to establish the North Central Washington Professional Development Center continue to work and learn together in a research-rich environment where new knowledge about teaching has been, and will continue to be, used in actual school settings.

Intended Outcomes

The program intends to enhance collaboration in developmental programs for teachers across all educational levels from pre-school through graduate school and to promote life-long learning.

Lessons Learned

This program is in its infancy. Thus far the following things have been learned. Universities must be responsive to community and regional professional development needs. PK-12 approaches to teacher development are organized somewhat differently than higher education approaches, but the goals are nearly identical. Shared leadership in reform initiatives produces innovative programs which would not be possible if undertaken by one institution or agency in isolation of others.

At this point, CWU is extremely pleased with its progress. Research and evaluation over the next two years will doubtless produce a response to the question: "What would we do differently?"

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Cleveland State University

Cleveland, Ohio

The Comer School Development Program (SDP)

By definition, the Comer SDP is a collaborative model of interactions among school-based teachers (Cleveland Public Schools), parents, university pre-service teachers and faculty (Cleveland State University), and the community (local foundations, Child Guidance Center). It places the development, learning and mental health needs of students as the central focus of this school reform initiative.

The Comer SDP, a dynamic model of urban school reform, is based on the premise that all children are capable of learning when they have opportunities to develop meaningful personal relationships, and when their intellectual, emotional and physical needs are fully met by their schools. The three key components are the School Governance Team, the Mental Health Team, and Parent/Guardian Involvement. This collaborative program seeks to improve the quality of education and the achievement of children in the Cleveland Public Schools and to change the way pre-service teachers are prepared and in-service teachers are educated to insure that they effectively teach children in urban school settings and work collaboratively with their parents. The teacher education curriculum at Cleveland State University has been revised to insure that graduates have the necessary skills and knowledge. Field experience, practicum and student teaching placements have focused on Comer schools and school-site cooperating teachers have been trained. A series of professional development activities have been cooperatively designed around program goals (e.g., strategies for successful parental involvement, review and revise curriculum, understanding the mental health needs of children). Community and business groups have become advocates for children and their parents/guardians.

Intended Outcomes

By building a meaningful partnership for sustained educational change, children will be more successful in school due to reliable relationships with adults who value education; their human as well as academic needs are met and they are held accountable for undertaking the effort to learn. The Comer SDP forges and renews relationships among pre-service and in-service teachers, parents, local schools and communities to develop ways of giving better human resources and encouragement to school children.

Lessons Learned

As a result of this program, it can be stated that differences between public schools and universities can be a source of stress (e.g., freedom of faculty to have choices regarding their time, paid consultation during the school day, and interacting with the broader community). Further, businesses have a great deal to contribute to the partnership in terms of consultation. The expertise of community agencies contributes significantly to the SDP; this theory-driven school reform model provides an empirically based framework for professional development. Ideal settings are provided for pre-service teachers to learn not merely to survive in challenging urban school settings, but rather to reform and improve their ability to teach for change. The project revealed that a university facilitator for each school helps to nurture systematic school change by serving as constructively-critical listeners, collaborative research-

ers, catalysts and initiators for new ideas and new processes, and conduits of information. Professional development activities can be designed for each school site that enables teachers, parents, community personnel, and university faculty to successfully implement the Comer process.

Given the chance, the following would be done differently in the future: funds for released time would be provided for public school personnel which parallels university faculty in addition to their paid professional development to insure "perceived parity"; early "team building" consultation would be offered to enhance collaborative efforts; opportunities for interactions beyond the school day (i.e., dinners, weekends) would be provided; all new college faculty would be informed about the SDP program; and a member of the Board of Education would be taken to New Haven for training.

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College of Charleston

Charleston, South Carolina

Accelerated Schools Project

The role of teacher in a restructured school is different than in a traditional school, and therefore universities must change the curriculum accordingly. Teachers are being asked to work collaboratively with peers to make decisions, work more closely with parents (often culturally different than themselves), and make decisions about what, how and in what context their children learn. The curriculum must prepare novice teachers to work effectively, not only in the classroom, but also in the school and in the community.

The college is using the Accelerated Schools Project (one of the most prominent school restructuring movements in the country) to ensure that it is providing its graduates the skills and knowledge necessary to succeed in restructured schools. Further, the project provides student teachers an opportunity to learn in schools that are at the forefront of educational reform. The reform has two components. The first focuses on changing the curriculum in the teacher preparation program. The college is adapting the philosophy and process guiding the Accelerated Schools Project to create a vision of the ideal novice teacher; take stock of what is currently being done to prepare novice teachers; compare the vision and current practice and identify areas for change; and design strategies to reform the curriculum in the direction of our vision. As this examination of the curriculum is occurring, student teachers are provided an opportunity to work in accelerated schools. This experience not only benefits the student teachers, but gives the project staff an opportunity to test some ideas on curricular change.

Intended Outcomes

The intended outcome of this reform is to prepare novice teachers to work in restructured schools. The teacher preparation program will better prepare teachers to work in a democratically governed school; a culturally diverse setting; a school with high expectations for all children; and a school that encourages creativity, challenge and risk-taking in the classroom.

Lessons Learned

This reform effort began in August 1994, so this is only beginning the curriculum exploration process. The ideal novice teacher is a person with a broad array of skills, dispositions and knowledge. The reform staff also recognizes (although it has not formally conducted an examination of current curriculum) that the curriculum needs to be refocused to better prepare novice teachers to work in restructured schools and to work in culturally diverse settings. The student teaching component of the project has taught that many of the students have a limited understanding of working in culturally diverse settings and of the skills needed to work collaboratively with peers to create school change.

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Columbus College

Columbus, Georgia

Columbus Child Care Resource and Referral Center

The Columbus Child Care Resource Referral Center is part of the School of Education, Department of Curriculum and Instruction, Early Childhood Education at Columbus College in Columbus, Ga. The college's commitment is noted through use of their facilities, faculty and many existing resources in the early childhood teacher education program and in the department of curriculum and instruction. These resources enhance the collaboration with schools and community. The Columbus Child Care Resource and Referral Center seeks to promote child care resource and referral as an integral part of the child care delivery system. This service enhances the quality and availability of developmentally appropriate care for children by providing resources and referrals for families, professional child care providers, school districts, students and the local community. The services also are extended to rural counties in West Central Georgia.

In place since October 1992, the Columbus Child Care Resource and Referral Center offers unique features that enhance and make a difference in the teacher education program, community and school district. Having on-site accessibility to information and resources about choosing quality child care, consultation about child care issues, and availability of current information and resources through the resource library has had a direct impact on the teacher education program. Students benefit by the child care information and materials that they can use in their education methods courses and related careers. Faculty members and teachers in the school district have the same accessibility. Providing the Child Development Associate Credentializing Program and Child Care Training Credits, as defined by the Georgia Department of Human Resources, also offers teachers and students on-site, specific training in early childhood development. The community also has access to workshops on issues of quality child care and parent education. Businesses are consulted about how quality child care affects them and are provided current resources on quality child care.

Intended Outcomes

The intended outcomes of the reform are to have a center that serves the children of the area (58,414) by providing a central location where the community, schools, parents, child care

providers and college students can have questions answered, receive help in finding appropriate child care, and obtain training in specific areas of child care and early childhood development in the nine counties serviced.

Lessons Learned

Statistical data of the Columbus Child Care Resource & Referral Center support the fact that the center has played a significant and visible role in serving students, teachers, parents, children and the community. This has been accomplished through child care referrals, community networking, technical assistance, promoting quality care for children in child care/schools and workshops. The center has also learned that parents will make the best choices for their children when given information on quality child care. In addition, it was determined that developing and maintaining an adequate supply of child care is most effectively accomplished through offering respectful, unbiased training and technical assistance to the providers.

Changes to the project would include a larger facility to serve more people, an outreach transportation program to deliver and pick up resource materials, and increased staff to provide more technical assistance. As in every project, awareness is critical. Ways are continually being examined and tested to publicize the services of the Columbus Child Care Resource and Referral Center.

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East Stroudsburg University

East Stroudsburg, Pennsylvania

Partnership for S.U.C.C.E.S.S.

In a collaborative endeavor, the East Stroudsburg Area School District and the East Stroudsburg University co-direct an educational partnership between School and University Collaborating Creatively to Educate Successful Students (S.U.C.C.E.S.S.). This partnership provides an innovative program for staff development and curriculum restructuring, teacher preparation and research. This project is responsive to the current trends in educational reform (particularly in the arts, learning and development), innovative models of teacher preparation, and community interest and involvement in education.

The goals of S.U.C.C.E.S.S., in its second year, are to promote and encourage flexibility among staff to achieve high expectation; focus on expected student learning outcomes and realistic assessment systems; concentrate on instruction strategies to achieve challenging learning outcomes; and meet the diverse needs of learners through creative activities.

This collaboration explores three integrated perspectives. First is the essential component of staff development and curriculum reform, which involves both regular staff and student professionals. Workshops have explored the role and challenge the arts offer to teaching and learning and have been jointly sponsored by the university, through on-site graduate courses and district initiatives. Second, the university has redesigned the current teacher preparation

program to provide students with earlier, more extensive classroom experience. Pre-service students participate throughout a semester in planning, teaching and a variety of activities which support arts in education, while student professionals (student teachers) complete an entire semester at Resica under the joint supervision of two teachers. And third, the implementation of a research base and ways to disseminate best practice have begun this year.

Intended Outcomes

Partnership for S.U.C.C.E.S.S. focuses on staff development and curriculum restructuring and teacher preparation. Through creative collaboration, elementary students are involved in an innovative, integrated arts program, complemented by a professional school model of teacher preparation and research.

Lessons Learned

The success of this partnership has been overwhelming. Through the three initiatives, staff development, teacher preparation and research, the project has just begun to explore the range of possible benefits and outcomes to both the district and the university. The initial priority of staff development related to arts in education helped focus the teacher's energy and create a vision for teaching and learning. Staff at Resica met the challenge through creative collaboration with other teachers, support staff, artists-in-residence and university faculty. Extensive dialogue continues among these groups relating to exemplary arts models, art explorations, research, national art standards, assessment, and technology. The current goal is to monitor the variety of artistic explorations which have become integrated into teaching.

The involvement of pre-service students has benefitted students, teachers and children through a flexible system of participation and connection to course work. The student professionals have provided the most interesting challenges to date. Time for conferencing with students and cooperating teachers has increased due to expanded roles and more elaborate teaching demands. Both issues are being addressed by school staff and university faculty.

Research and dissemination have begun to occur on many levels. Resica staff and student professionals are currently participating in a research study that examines response to change and beliefs about the arts.

Presentations about this partnership model at national and regional conferences have begun and other dissemination possibilities are being explored including two-way communication between university and school classrooms.

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Pocono Area Educators' Technology Forum

The Pocono Area Educators' Technology Forum (PAETF) was created in May 1990, to promote the sharing of ideas, concepts, problems and solutions in the use of technology and computers in education. This sharing has led to a closer alliance of teacher competency needs and teacher education program goals. Membership is based on an institutional level rather than

an individual level. Member institutions may involve as many individuals as they wish to have participate, so each employee of all 15-member districts, the university and the vocational-technical school is technically a member of PAETF.

The cornerstone of the forum's activities is the monthly meeting held during the academic year at various member schools. Some meetings are held during the school day while others are held in the evenings to accommodate those teachers who cannot be released from classroom duties. Meetings are attended by the computer coordinators, administrators and teachers from the member institutions. Several administrators provide substitute teacher coverage for the day so a teacher can attend a meeting, since the meetings provide valuable information without travel and conference registration expenses. Meetings usually include a business segment and a presentation about some aspect of computer technology that is currently in use within the district. To keep individuals abreast of forum activities, PAETF distributes *OnLine*, a newsletter for announcements, articles and meeting minutes. In addition, outreach programs have been designed by PAETF to provide information about the importance of technology in education for parents and the community.

Intended Outcomes

Pocono Area Educators' Technology Forum is a multi-level organization founded upon the premise that both public and private K-12, vocational and higher education institutions face similar problems in implementing computer technology, and that sharing experiences is a natural solution for learning from one another's experiences. It provides a place where technology leaders from a rural area can gather to share ideas, concepts, problems and solutions for the use of technology and computers in education.

Lessons Learned

Membership in a consortium like Pocono Area Educators' Technology Forum brings together a large, diverse community from which new ideas emerge. In turn, the forum provides the people-power to carry out new projects. Activities include sponsoring in-service technology workshops, computer fairs and student technology-focused contests. The establishment of a telecommunications link has provided a national and international link with the larger community of educators. PAETF has enjoyed a strong beginning and has become a respected organization in a very short period of time. PAETF is recognized for providing professional support to all who are involved.

Being a part of a local group such as PAETF is, in many ways, more valuable than membership in larger state or national groups. There is more frequent contact with colleagues and there is a higher level of personal participation in the activities. There is an understanding of the administrative and school board pressures that influence decision making, since the members of the organization are all part of the same community. The concept of the organization is being carried on through the development of similar organizations in other areas.

The future will require that the organization continue to be responsive to changes in education, and translate those changes into meaningful information that the teachers and administrators can apply for the benefit of their students.

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Educational Psychology Field Experience: Tutoring Basic Education Students at Academic Risk

East Stroudsburg University and a number of school systems (K-12) in the immediate geographic area of the university have established a meaningful partnership that is helping children with academic needs and providing education majors with early field experiences.

A significant population of students, grades PreK-12, attending the public schools of Monroe County, Penn., were identified as "at risk" academically. Some form of additional learning support was deemed necessary by public school officials. At the same time, university officials made a decision that students preparing for the profession of teaching were in need of early-on field experiences as part of their formal training program. As a result of a number of planning sessions involving representatives from basic education and higher education, a tutorial program was developed that marshaled the resources of public school districts and a university student population training to be educators. Because of the outcomes of this partnership, some students who might have "fallen through the cracks" are receiving the extra support that may well put them in the position of successful performance toward their high school diploma. Additionally, university students were gaining an all important early field experience in the critical task of teaching and motivating children toward the value of learning. In effect, a "win-win" program for all involved.

Intended Outcomes

Two outcomes were intended. The first outcome was to assist basic education students (PreK-12) who have been determined to be at "academic risk" with skills to improve their performance. Additionally, the project sought to provide education majors with an early field experience/teaching opportunity with emphasis placed upon developing skills in designing lesson plans and implementing a variety of teaching strategies.

Lessons Learned

Participating university students have provided feedback (via a survey) of the value of the program in their training. Additionally, professionals from the participating schools have completed surveys associated with their views of program effectiveness. These surveys indicated that 98 percent of the students saw the experience as valuable in their preparation program; 95 percent of the students stated that the experience helped them develop a greater appreciation for the rigors of effective teaching; and a number of students continued tutoring during the semester that followed this field experience.

Surveys conducted with the public school teachers participating in the program rated the program very high and encouraged its continuation. All public/private schools that participated in the program during the 1993-94 academic year will do so in the 1994-95 academic year. The above surveys also caused project leaders to do several aspects of the program differently. These changes include ensuring that student tutors are provided with opportunities to meet with basic education teachers that have referred students for tutoring. This has helped tutors assess the impact their tutoring is having on students when they return to the regular classroom. Also, meeting with referral teachers has helped provide initial background information on students that was not part of the original plan.

More emphasis upon planning/evaluation techniques is to be provided by university professors at the start of each semester. These skills are expected of the tutors, but the original plan didn't place sufficient emphasis timely to the field experience.

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East Texas State University

Commerce, Texas

Northeast Texas Center for Professional Development and Technology

The Northeast Texas Center for Professional Development and Technology (NET CPDT) is a collaborative of East Texas State Universities, public schools, businesses and Education Service Centers dedicated to redesigning pre-service and in-service teacher education in a field-based setting. Innovative teaching and assessment practices are integrated with technology to improve the learning and achievement of students in a pluralistic society. The integration of theory with practical classroom applications occurs under the guidance of Instruction Leadership Teams (ILT) who practice site-based decision-making, who are life-long learners, and who value professional growth opportunities that encourage reflective thinking. The program involves pre-service teachers in two semesters of "hands on" experiences in public schools while integrating the required university course work content. The ITL consists of volunteer mentor teachers, interns and/or residents, and a university faculty member. While the ILT's primary focus remains on K-12 learners, the mentor teachers share their expertise with interns and residents as they work together. Interns and residents have extended opportunities to practice what mentor teachers model and to develop their own teaching styles. ILT members provide continuous feedback while encouraging interns and residents to develop self-evaluation and reflective inquiry skills.

Intended Outcomes

The NET CPDT is collaboratively redesigning pre-service teacher education as a comprehensive field-based program. The collaboration is improving the quality and relevance of staff development and maximizing K-12 student learning by addressing the needs of a culturally diverse population.

Lessons Learned

True collaboration involves continually bringing all the partners together for problem solving and vision building. Additionally, having all partners represented fosters program ownership at all levels. Ownership is the key element that motivates the participants to remain committed to the program.

Both collaboration and ownership depend on communication. More effective avenues of communication across this partnership has been a continual challenge. Electronic mail is available only at some sites. A newsletter will be produced to share successes and to update scheduled events. However, facilitating communication will continue to be a priority, especially as the program grows larger.

Integrating the content of the university course work with assignments suited to the student's time in public schools is being continually refined. Seeking effective ways to bridge theory and practice with interns and residents as they practice what they learn has been an important task for mentors and university liaisons. Self reflection is encouraged and has proved to be a major factor that facilitates professional growth.

The interaction of university and public school personnel on a regular basis has been valuable, however, it changes the roles previously played by both groups. Therefore, administrators must take a closer look at what is valued and find appropriate ways to support and reward these new approaches.

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Eastern Illinois University

Charleston, Illinois

Collaborative Teaching Project

Each semester, a team of teachers from Charleston Junior and Senior High Schools and a team of Eastern Illinois University education faculty collaborate in the delivery of team-taught secondary education methods and educational psychology classes. This program provides increased opportunities for professional development for pre-service teacher education students, in-service teachers and university faculty.

The course instructors and university team members meet regularly with the classroom teacher team to plan the course syllabi and assign instructional responsibilities. Throughout the semester, the college classes meet at the junior and senior high schools. University faculty and classroom teachers teach a variety of topics and involve pre-service teacher education students in related activities in the public school classrooms. As a result, pre-service teachers are introduced to "real" teaching and the daily life of schools early in their career. Public school faculty teach future teachers and work as mentors for the pre-service teachers. University faculty work with public school teachers and in some cases, once again, are introduced to "teaching in today's schools."

Intended Outcomes

The Collaborative Teaching Project is a public school-university partnership in the pre-service training of teacher certification students. The ultimate goal is to improve the educational opportunities and to increase learning for the children attending public schools through improved teacher preparation programs, enlightened staff development activities, and meaningful collaborative inquiry.

Lessons Learned

Teacher certification students benefit from this collaboration as they learn pedagogical knowledge and develop skills within the contexts of real schools, being taught by public school

faculty and university faculty, and experiencing increased exposure to diverse students through a total immersion in the teaching of 7-12 grade students. Classroom teachers benefit from the program through a change in role to a leader of an instructional team, learning new roles and skills, facilitating the learning of more students, and participating in the education and induction of future teachers. The junior high and high school students benefit from being taught by an instructional team, increased use of integrated units, problem solving and resources via internet, and the inclusion of all learners.

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Emporia State University

Emporia, Kansas

Professional Development Schools

University teacher education administration/faculty and school administration/faculty from a suburban district (USD 233 Olathe) engaged in the collaborative design, implementation, and evaluation of a senior year 100 percent field-based clinical school experience. In the fall of 1993, two cohorts of elementary teacher education majors (10 students in each cohort) began one year of "immersed" training in designated elementary school classrooms in USD 233. The teacher trainees (interns) were assigned to a mentor teacher (MT). Throughout the majority of the school day, interns observed their MT, observed students, and participated in hands-on instructional opportunities to interact with children. Mentor teachers received training in supervision and feedback techniques and facilitated intern growth through conferencing on a daily basis. A university faculty member assigned full-time to the PDS facilitated daily and weekly seminar sessions on selected topics assisting interns to link theory to practice. Seminars were presented by mentor teachers, district personnel and ESU teacher education faculty. Additional seminars involved team teaching with university faculty and mentor teachers working together. At the end of the year, university and school personnel formally evaluated intern outcomes and outcomes for the Professional Development School primarily through use of authentic assessment procedures (portfolios, videotapes jured by "blind reviewers," journals, etc.). Published quantitative and qualitative measures were used to compare the knowledge and skill acquisition of interns vs. the performance of students completing a more traditional campus-based pre-service teacher education model.

Intended Outcomes

The primary outcome of the Professional Development School project was to engage PreK-6 practitioners in the collaborative design, implementation and evaluation of a 100 percent field-based undergraduate pre-service teacher preparation program.

Lessons Learned

The project illuminated several points. Collaboration is hard but rewarding work! And PDS models are very expensive in comparison to the traditional model. But they are worth the effort and money. PreK-6 practitioners have valuable insights which can benefit—and improve—teacher education. PDSs provide learning opportunities for university pre-service stu-

dents, K-12 practitioners, and university faculty. Just as important, children attending school where the PDSs are located have directly benefited from increased attention in classrooms. The university faculty have increased opportunities to model effective teaching strategies with PreK-6 children. The PDSs have provided teacher trainers with an opportunity to rethink "why we do what we do."

University faculty have increased opportunities to engage in research efforts with practitioners in a clinical setting. Traditional and authentic assessments suggest that the PDS model is a viable alternative to a more traditional approach. The clinical skills and confidence of PDS students are superior to those of students from a traditional preparation model.

Experience recommends a full year of collaborative planning prior to implementation.

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Better Schools Project

In 1994, the Jones Institute for Educational Excellence launched a project, funded by Bank IV Kansas, to recognize on-going successful school improvement programs throughout Kansas. By developing a bi-annual symposium for the Kansas Better Schools Project, the institute would provide a platform for outstanding school improvement efforts to celebrate their accomplishments, affirm the Teachers College's commitment to the schools, focus dialogue on school improvement programs, and establish a process which could accelerate change and increase the probability of success.

Nomination forms were sent to all public and private schools in Kansas. Nominees from across the state were asked to complete an application form documenting the selection criteria: sustained commitment (at least three years); broad ownership in planning, implementation, and assessment by principals, teachers, parents and others; an impact on students' learning; a clear sense of results that persons inside the school and beyond can identify and appreciate; broad applicability for other K-12 settings in Kansas and the nation; and a firm grounding in current developments in educational theory and research.

Intended Outcomes

The Bank IV Kansas Better Schools Project was developed to recognize school improvement programs throughout the state, and provide a platform for those schools to share their successful projects with educators.

Lessons Learned

Most exciting and encouraging, this project revealed a wide diversity among the nominated programs in content and design, and broad applicability from each project nominated regardless of whether the representative school district was rural, urban or suburban. With one exception, all the nominated schools were eager to share their accomplishments either as a featured finalist in a formal presentation, or as a nominee with information on display for attendees to view casually at a designated time during the symposium.

The formal presentations made by representatives from the five final projects, and the enthusiasm from staff and patrons of each nominated school district were equally exciting and impressive. One urban high school brought its entire staff to the symposium.

Though received well by those in attendance, participation was not as high as expected despite the information provided through mass mailings and other forms of publicity. Plans for future Better Schools Projects include expanding the symposiums to include an educational fair with greater focus on increased and varied opportunities to share these accomplishments with districts throughout the state. Mass mailings will be expanded to include KNEA building representatives, and will feature a more detailed description of the formal presentations as well as a listing of the schools and projects that will contribute to the educational fair.

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Fort Lewis College

Durango, Colorado

Induction Program: Collaboration Between Fort Lewis and San Juan Board of Cooperative Services

The Department of Teacher Education and the San Juan Board of Cooperative Services (BOCS) have collaborated in the effort to design an Induction Program.

The Induction Program includes all professional personnel (teachers, administrators and special service providers) who are new in the five districts served by San Juan Board of Cooperative Services. The program goals are to orient the inductee to "how things are done" in the districts, to socialize the inductee into the new role, to provide planned technical skill developments during "on the job" performance, and to provide continuous formative assessment. These goals are further modified to "fit" teacher inductees specifically.

Mentors are chosen (based on pre-set criteria) by the building principal and/or superintendent. The mentors/inductee pair develop performance criteria which are "negotiated" with the director of the program from Fort Lewis College. Monthly meetings are conducted by the director to assure on-going support is given to the inductee and to monitor progress on the performance criteria. The performance criteria are developed based on the program goals and the priority of the appropriate content of support.

This partners in this collaboration share the cost of the project (2/3 from BOCS and 1/3 come from FLC). The director of the project is the chair of Fort Lewis College Teacher Education Department: and the goals were jointly developed by the director of the project and the director of the BOCS.

Intended Outcomes

The program was designed to provide induction for all professional personnel who are new in the districts served by the San Juan Board of Cooperative Services.

Lessons Learned

When working with an "umbrella" agency which serves more than one district, it is very important to get that agency to have the districts agree on the same (or equivalent) compensation for mentors. There was some dissatisfaction among the mentors when they learned that one district paid more than another.

Induction provides technical support but the affective nature of the program is very important.

The project would benefit from early identification of a pool of mentors at the conclusion of the school year so that they may be "trained" separately and prior to the onset of the school year. (Research has shown that the days prior to and the first day of school can be the determiners of success or failure of new teachers.)

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Frostburg State University

Frostburg, Maryland

Higher Education Collaboration with K-12 and Community

This collaborative effort seeks to share the resources and professional expertise among the university and surrounding school systems.

Throughout the year, FSU students, in pairs, develop thematic units, under the direction of the FSU education faculty and the guidance of professional educators in one of the tri-state area school systems. During a three-week field experience, FSU students implement these thematic units in a classroom setting. Edited copies are then evaluated and presented to the cooperating teachers. More than 150 units are on file in the FSU library to serve as a professional resource for area teachers.

A two-week summer pre-kindergarten practicum, jointly developed and implemented by FSU students and Hampshire County, W. Va., teachers, was initiated in 1994, to enrich the potential success of high-risk kindergarten students.

In an effort to expand the literary repertoire of area students, an experimental program was developed to introduce Reader's Theater and to promote its value in promoting language proficiency to third grade students. The same students participate in a pen-pal exchange with FSU education students. This experience provides an authentic writing experience for the elementary students and demonstrates the developmental stages of writing to the university students.

Intended Outcomes

The project intends to develop an understanding of the differing roles in education, to provide prospective teachers with professional development opportunities, and to develop and assist practicing professionals.

Lessons Learned

Collaboration takes time, effort and requires flexibility of both parties. A vast resource of opportunities exist. In the future, a program such as this should be initiated earlier.

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George Mason University

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Professional Development Schools

Since 1989, the GMU Graduate School of Education (GSE) faculty has restructured its teacher preparation programs for early childhood and middle education in collaboration with officials, principals and teachers from three Northern Virginia school divisions. Course work and schedules have been modified to support a full calendar year of graduate study and supervised internship in selected public schools. Teachers trained as GSE clinical faculty assume greater responsibility for teaming, supervising and evaluating interns. Teachers and principals also serve on admissions panels and search committees, and serve as course instructors and curriculum consultants. University faculty work with teachers to design both course work and clinical experience. Costs are shared by the university and school districts. Interns receive $500 stipends for their service as instructional assistants and substitute teachers in the PDSs.

Intended Outcomes

The intended outcome of this Professional Development School initiative is the simultaneous improvement of teacher education and practice in the schools.

Lessons Learned

Collaboration with K-12 educators through the PDS model has greatly strengthened the university's Early Childhood and Middle Education Programs. As a result, the university is piloting a different PDS model for Secondary Education and has submitted a grant proposal to begun planning for a field based program.

The program also revealed that collaboration is difficult and time consuming, requiring negotiation, compromise and change in old ways of knowing and doing. In addition, the need for articulation and validation of the revised roles and higher responsibilities for PDS participants — particularly through the rewards systems in K-12 and higher education— is evident. After five years, the university will be moving from the current PDSs to new sites, doing many things similarly. However, interns will be clustered in fewer PDSs, the sites will be more carefully selected, and collaborative inquiry will be incorporated from the outset.

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Governors State University
University Park, Illinois

Field Based Methods Courses

The College of Education has successfully developed school sites with multicultural settings to provide methods course instruction as well as pre-student teaching experiences for undergraduates in an elementary education program. Students enrolled in the program meet with college professors at designated school sites for methods course instruction as well as clinical experiences. Classroom teachers assist with instruction as well as assessment of undergraduates. Professors exemplify practices by teaching various grade levels under the observation of pre-service students. Classroom teachers provide some instruction for undergraduates during course meetings.

Intended Outcomes

The program is designed to provide collaboration with practicing professionals and higher education professors in educating elementary teachers. Additionally, it seeks to include professors and practitioners in exemplifying "real-world" practices for pre-service students. Professors teach methods courses for the elementary education program in schools and use the classroom professional to enrich methods through classroom experiences. Classroom teachers provide instruction of pre-service students as well as classroom experience prior to student teaching.

Lessons Learned

Reflections on the project revealed that experienced classroom teachers learn new methods from association with professors and pre-service students. Pre-service students gain invaluable experiences prior to student teaching about teaching, learning and schools, and have opportunities to demonstrate teaching abilities. Small group instruction by pre-service teachers is an invaluable experience in the preparation of future teachers. Materials needed by schools and pre-service teachers can be provided through collaboration with the university.

Some areas of change in future projects include the early professional development of all teachers involved to better understand field site education of pre-service students. Payment, in the form of materials, equipment and professional development, from the university to collaborating schools should be outlined at the start of the program in the future.

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Harris-Stowe State College
St. Louis, Missouri

Metropolitan St. Louis Consortium for Educational Renewal

Six education institutions in the metropolitan St. Louis area have joined to form an educational renewal project which will benefit public schools and teacher training programs simul-

taneously. The Metropolitan St. Louis Consortium for Educational Renewal involves two teacher training institutions; one which serves a predominantly urban, minority population and one which serves a predominantly suburban, traditional population. The public schools are diverse in students and locations and range from an early childhood center to a high school. Faculty from all of these institutions formed an inclusive, urban consortium to improve educational programs at all levels of schooling from pre-kindergarten through graduate education. It is believed that in active partnerships framed by the postulates of John Goodlad simultaneous renewal of schooling and teacher education is addressed most effectively. The postulates provide theoretical guidance to the members of the consortium while the practical "how to" information is developed together, based upon institutional and professional needs. Specific activities are planned which engage future teachers in site-based practice and which inform classroom teachers of contemporary research and theory. Additionally, the consortium provides the opportunity for educators at all levels to come together to share ideas in a reflective manner. The collaboration of this diverse group of educators is also a means for all participants to grow in understanding multicultural education.

Intended Outcomes

Six educational institutions have joined to simultaneously improve teacher education to make it "fit" better with what contemporary schools are like and to improve schools to "fit" what we know about effective teaching and learning.

Lessons Learned

The participants of this consortium have learned the basic principles of collaboration and how to come together with discussion and compromise to work toward a common goal. At all levels of education, the purpose is to improve the learning of students. Providers of education need to become renewed and re-inspired, and to have regular opportunities to talk to each other. The interaction with other professionals does not occur on a regular basis because teachers are busy professionals who work largely in isolation. Therefore, the opportunities to visit and observe in other classrooms at a variety of grade levels has been beneficial. Perhaps most important, participants have gained a deeper understanding of and appreciation for different cultures and the diversity of cultures represented in contemporary classrooms. Educational reform cannot occur in a vacuum, but is best approached through inclusive effort of hard work by educators at all levels.

In retrospect, the work may have been facilitated in the beginning by holding more day-long retreats and providing more time for members to get acquainted to work better together. The participants have worked through many unanticipated issues; it is possible that cultural sensitivity training would have been helpful. Finally, tours of the schools would have been very helpful at the beginning of our program.

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Idaho State University

Pocatello, Idaho

Project: Education 2000

The primary mission of the Bureau of Educational Research and Services (BERS) is to provide staff development, research and consultation services to public and private agencies in southeast Idaho. Organized under the College of Education at Idaho State University, BERS also contributes to the broad goals and mission of the college through its planning and evaluation, writing grant proposals (local, state, federal), educational facilities planning, and educational policy development.

In concert with the BERS mission, the college organized an educational summit meeting Aug. 18 - 20, 1994; involved were key educational stakeholders (public and private school teachers, principals, superintendents, local area business men and women, state Department of Education staff, state Board of Education members, state legislators, and colleagues from the Colleges of Arts and Science, Applied Technology and Health Related Professions. As a result, eight collaborative teams were formed to identify current College of Education paradigms and create new vision, mission and action plans. To date, the teams continue to meet weekly working on paradigm changes.

Intended Outcomes

The goal is to improve the quality of rural education K-12 in collaboration with 54 school districts in southeast Idaho with regional consortiums, reduced fees for staff development, and research and service through a Bureau of Educational Research and Service. The project also seeks to publish synthesis or applied research on restructuring schools and train teachers and administrators in the use of the research for classroom reform.

Lessons Learned

Results from the 1993-1994 efforts included 300 staff development sessions, program evaluations, a development project, research assistance and packets delivered to school districts and private, non-profit agencies.

The project held some lessons for participants. Collaboration is absolutely essential for rural school districts to provide quality education to the youth they serve. There is a need for collaboration by College of Education to continually "reinvent" itself. There is major restructuring of the college currently under way to meet this need. A year-long project, with school district involvement, will result in a revised vision, mission, and program delivery system using sophisticated technology delivery systems. The college must be committed to collaborating with its stakeholders to ensure success. Regular face-to-face interaction between college professors and school personnel is a critical component of reform.

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Indiana State University

Terre Haute, Indiana

Professional Development Schools Program

Indiana State University's Professional Development Schools (PDS) partnership is a collaborative and comprehensive program among the university and four area school districts. Currently operating in 10 public schools (five elementary, one middle, and four high schools), PDS links reform and improvement in the public schools to the preparation of educators.

This partnership is based on three assumptions: (1) Local Education Agencies (LEAs) want to provide exemplary learning environments for the children and youth they teach; (2) Institutions of Higher Education (IHEs) want to provide exemplary learning environments for pre-service and professional development educators; and (3) both institutions will enhance the probability of achieving their goal if they form a partnership designed to establish a learning community grades K through graduate school. This collaborative partnership can then impact all other categories of reform.

As an important feature of the program, ideas for reform, change and restructuring are developed in a cooperative effort between public school teachers and the university's faculty. In addition to the benefits these efforts bring to the public schools, Indiana State education students are provided with the opportunity to gain invaluable multiple field experiences from teachers who work with the schools, the university, families and their community. In this method, learning is enhanced to all audiences and participants of the PDS program.

To encourage continuation of growth and development among the public schools, the university provides fee waivers for teachers, program development support, and funds for collaborative inquiry. Sites participating in the PDS program are diverse and include both urban and rural settings with high percentages of students from each site facing impoverished socioeconomic conditions. All schools in the program are Indiana 2000 schools.

Intended Outcomes

The Professional Development Schools program is designed to link reform in schools to reform in educator preparation. Using the "simultaneous renewal" concept, the partnership is implementing programs designed to impact the learning of children and youth and those who teach them (i.e., pre-service, induction and professional development stages of educator development).

Lessons Learned

Collaborative work in the initial stages requires the discovery of mutual need, clarity of purpose, and especially the building of trust. Once established a partnership is a powerful vehicle to implement change and reform from personal change of an individual to broad programmatic concerns.

Because partnerships between LEAs and IHEs require the blending of two distinct cultures, the process is more often than not "messy," defying linear progression and requiring individuals to abandon traditional boundaries and roles.

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While it may not be the most expedient procedure, this experience taught that all parties must be a part of the process from the beginning. Far more energy must be expended convincing a group to join an effort than opening the process to them from the on-set.

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Jacksonville State University

Jacksonville, Alabama

Technology Scholarship Program for Alabama Teachers (TSPAT)

Increased demands for technological literacy learning through public school education prompted the establishment of the Technology Scholarship Program for Alabama Teachers (TSPAT.) TSPAT is a new state-funded program providing tuition and fee scholarships to certified, employed Alabama public school teachers for technology skills training in the curriculum. Teachers pursuing or who already have master's degrees may apply for awards. Jacksonville State University was named a site after meeting all state criteria, including installation of a Multimedia Instructional Laboratory (MIL), housed in the College of Education.

Multimedia is a form of communication that allows the inclusion of visual, sound, motion and interactivity into a learning situation. Multimedia allows for the presentation of information using various user-chosen formats that augment text and graphics with full-motion video and stereo sound.

Teachers enrolled in the TSPAT program are required to take three technology courses towards state certification: 1) Computer-Based Instructional Technologies; 2) Current and Emerging Instructional Technologies, and 3) Curriculum Integration of Technology. Teachers, after completing all course work, agree to teach in the Alabama public schools for three years after completing a master's degree funded by TSPAT. Teachers holding a master's degree prior to being granted a TSPAT award are not required to teach three years in Alabama and may apply a TSPAT award toward only the three mandated technology courses.

Intended Outcomes

The Technology Scholarship Program for Alabama Teachers (TSPAT) is a new state-funded program providing tuition and fee scholarships to certified, employed Alabama public school teachers for technology skills training and education. Teachers' technology training will translate into an improved K-12 technology curriculum in Alabama's public schools.

Lessons Learned

Technological education is highly appealing to teachers. Instructors encounter abundant information that relates the benefits and applicability of multimedia technology to the classroom. Three areas are focused on: the use of computers to do classroom record keeping, the use of software for nonlinear teaching, and its use to meet the learning styles of a diverse group of learners. Teachers, therefore, perceive that multimedia is essential to instruction in todays's classroom.

The laboratory is open to teachers seven days a week including four nights. Instructors or laboratory assistants are available to answer technical questions or suggest how to maximize the potential of the software. Teachers would rather have the equipment at their schools. Some PTAs and PTOs are raising money to help purchase equipment. Several of the teachers are in the process of writing grants to further increase funding for hardware. The local support for technology is remarkable in that it draws together parents, teachers, administrators and students in a common objective.

Experience with the program has revealed several components crucial to success. First, it is necessary to purchase upgradable technology. It is also necessary have ongoing funding to keep the technology current. It is essential to maintain room for physical expansion and to make provisions for staffing and instructors as the program grows.

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Lamar University

Beaumont, Texas

Spindletop Center for Excellence in Teaching and Technology

Collaboration with two independent school districts, a Regional Education Service Center, business partners, and the university has provided the foundation on which this new model has been developed. The collaboration involved approximately 5,000 public school students on seven campuses.

Pre-service teachers enroll in a junior-level internship which places them with experienced practitioners and university faculty on a school campus for three days a week for two semesters. Courses are taught at the site campuses by an interdisciplinary team made up of pedagogy faculty, arts and sciences faculty, and practitioners. To experience different grade levels and mentor styles, interns complete four eight-week rotations.

The technology includes laptop computers for interns and mentor teachers and three computers per classroom. On site the university students learn to use laser discs, CD-ROM, scanners, digital cameras, video editing equipment, and telecommunications. A software preview library is available to the interns, mentors, public school teachers, university faculty, and administrators. The university also has an interactive classroom connected to a rural school through fiber optics. Emphasis is placed on the integration of technology into existing curriculum. Students will graduate with skills on the two major technology platforms and a thorough knowledge of current technology used in education.

Through early field-based experiences, multicultural experiences, collaboration between the university and public schools, and the integration of technology into all aspects of teacher preparation, the center is significantly restructuring teacher education.

Intended Outcomes

Based on current research on effective teaching, the Spindletop Center is involved in restructuring teacher educator preparation and providing professional development for practicing educators. Through university and K-12 collaboration, field-based delivery integration of technology, and an emphasis on multicultural experiences, the center is providing a new model for teacher education.

Lessons Learned

The reform process emphasized the importance of creating a true community of stakeholders that had active input into all facets of the program. Further, the importance of maintaining and expanding collaborative relationships between university faculty, mentor teachers, and school administrators was underscored. True restructuring through collaboration is a time-intensive process. Although the process is slow, the results are well worth the effort. The project supports the view that a field-based program providing opportunities for interaction with practitioners and K-12 students is an exemplary model for preparing teachers for the 21st century. The best use of educational technology is as an integrated part of all classroom curriculum.

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Montana State University-Billings

Billings, Montana

Professional Development Schools

The College of Education and Human Services and area schools wanted to forge new and better relationships. The result was the Professional Development Schools project. This partnership began in the fall of 1991 with 16 professors committed to spending the equivalent of a day a week in school classrooms. Each site established general goals to work toward in the inaugural year, which primarily consisted of getting acquainted with each other and each other's programs. Professors carried out mini-research activities, conducted demonstration lessons, and brought preservice students to work at the site. Classroom teachers designed preservice teacher activities, worked at projects on campus with professors, and assisted with grant writing, curriculum changes, and in research activities in the partner school. By the fall of 1992, six schools were involved with 18 professors. The PDS effort has continued during the 1993/94 and 1994/95 academic years. Four elementary schools, one middle school, and one high school have remained committed to this partnership with the university.

Intended Outcomes

The Professional Development Schools (PDS) project is based on the idea that professionals across education must work together in a common setting to deal with issues facing teacher preparation programs for the good of all programs.

Lessons Learned

The most difficult and time-consuming part of a school-university partnership is building rapport between faculty of the two institutions. Without respect among participants, any co-

operative activity remains superficial. All involved need to be patient with the initial relationship building process.

The second difficulty seems to be overloading PDS sites with field experience students. Schools and their personnel are sometimes inundated with university students and their supervisors.

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Montclair State University

Upper Montclair, New Jersey

New Jersey Network for Educational Renewal

The New Jersey Network for Educational Renewal is a school-university partnership involving Montclair State University and 13 neighboring school districts. As part of John Goodlad's National Network for Educational Renewal, the network is dedicated to the simultaneous renewal of teacher education and the schools. The network is governed by an executive committee consisting of teachers (many of whom are network district coordinators) and university representatives.

Teachers in member districts are eligible for appointment at the university as clinical adjunct faculty, who serve as mentors and on-site supervisors for student teachers in the schools, and may co-teach student teaching seminars with university faculty. University faculty may spend one-quarter of their time working in network schools to promote teaching for critical thinking, improve the clinical experience for student teachers, and help with school renewal.

The network provides a summer institute for clinical adjunct faculty, an annual workshop series co-taught by university and school faculty, teacher study groups, and a newsletter-journal written by teachers. Within the network, there is a model professional development schools.

Intended Outcomes

The New Jersey Network for Educational Renewal is a school-university partnership that is dedicated to the simultaneous renewal of teacher education and the schools. In pursuit of this overarching goal, the network works to improve the clinical dimensions of teacher education, provide professional development opportunities for teachers in member schools (especially around teaching for critical thinking) and to create expanded roles and opportunities for school faculty in pre-service teacher education and expanded roles and opportunities for university faculty in schools.

Lessons Learned

School and teacher education renewal is difficult, complex work; constant refocusing on the mission and goal is necessary. A retreat for the Executive and Operations Committees and university faculty involved in teacher education was held to define and describe a renewing

school and teacher education program, delineate what must be done to achieve those visions, and set benchmarks for the next two years to measure success. Events such as this retreat serve to reinvigorate and energize the work and they should be regular features of such collaborative endeavors.

The collaborative partnership has learned that school and university people have a great deal to learn from one another, and that true collegial efforts, such as co-teaching workshops and seminars are extremely rewarding and professionally renewing. As a result of the professional development activities, many teachers and principals have adopted and adapted "teaching for critical thinking" as the theme of the teacher education program. In addition, work on Goodlad themes such as enculturation into a social and political democracy, and stewardship of best practice, has stimulated and invigorated professional conversation at the university and in the schools.

At Harold Wilson, the professional development school, this project proves how compatible and productive the interweaving of pre-service teacher education can be. More institutions must work to establish more true professional development schools if the mission of simultaneous renewal is achieved..

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Northeastern Illinois University

Chicago, Illinois

Professional Development Program: A School/University Partnership

The Professional Development Program (PDP), at Northeastern Illinois University's Chicago Teachers' Center, was established in 1989 to improve teacher education in Northeastern's College of Education and to promote a professional culture for teaching in Chicago inner-city schools. The program has built relationships between Chicago teachers and teacher education faculty and students through a special program, Commitment to Urban Education (CUE), which provides pre-service teachers interested in urban schools with mentors among outstanding Chicago teachers. Students observe and teach in city schools, especially in two Professional Development Schools (PDSs) initiated by the program. A second link is that for the past four years, pre-service courses have been co-taught in partnership with teachers from one of the PDSs. The teachers provide examples to support the professor's presentations and often give their own presentations that link theory with practice. The program also arranges for city teachers to be guest speakers in classes across the pre-service curriculum. The final link are teams of professors who provide hands-on, in-classroom assistance to teachers and pre-service students in the PDSs, developing and supporting innovations such as use of thematic units, alternative assessment, and hands-on science and math. Pre-service students are also involved, learning about collaboration—the benefits and the skills involved.

Since its beginning, PDP has been a catalyst for this collaboration, helping to bridge the "culture gap" that exists between the academic world and the everyday life of the urban school.

Intended Outcomes

The Professional Development Program (PDP) seeks to establish reciprccal professional relationships between College of Education faculty and teachers in several inner-city schools that have become Professional Development Schools with the program's assistance. With this work as a building block, PDP has also initiated a Commitment to Urban Education program for pre-service students at the college. The intended outcome of that program is for pre-service students to have the opportunity to be exposed to high quality urban schools and classrooms, and to be mentored by teachers in these schools as they prepare for careers in urban education.

Lessons Learned

Problems in implementation of the PDP's reforms have arisen from the cultural differences between schools and universities in terms of reward structures, degrees of autonomy of professionals, and role expectations. These differences led to difficulties in communication and trust-building between teachers and professors. In retrospect, PDP would try to address these differences earlier in the program, through team building activities involving professors and teachers working together to rethink the pre-service program.

There were also substantial barriers to collaboration within both schools and the university. The most serious of these is limited time, especially in schools. PDP has supported revisions in school schedules that give teachers a weekly time period to meet and plan with each other, with their student teachers, and with outside consultants. In future projects PDP intends to build in the more substantial provisions for teacher release time necessary for productive collaborative planning.

The project also revealed a lack of familiarity with and fear of urban schools on the part of many teacher educators and pre-service students. Because of the "bad press" about urban schools and the high degree of racial segregation in this city, many pre-service teachers and some teacher educators are reluctant to work in city schools. A program like this needs to do more to recruit city residents—especially members of minorities—into teaching and into positions as teacher educators, as well as to expose suburban-oriented teacher candidates to successful urban schools.

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Northeastern State University

Tahlequah, Oklahoma

Great Expectations

The Great Expectations program was launched by the Great Expectations Foundation in 1990, providing funding for Marva Collins of Westside Preparatory School in Chicago to work closely with key educators from 23 pilot elementary schools in Oklahoma. Her involvement was for eight months. To reinforce the initial training and provide permanency, Northeastern State University was selected as the site for the initial and the subsequent annual summer insti-

tutes. During this intense two-week periods, teachers, support staff and principals are engaged in such classes as methodology, classics, fables, science, math, mythology, introduction to foreign languages, and Stephen Covey's book, *Seven Habits of Highly Effective People*. These classes are taught by a blend of professors, teachers and visiting instructors who have special skills in specific areas. More than 800 people have participated in these special sessions.

The Great Expectations Foundation Board of Directors is comprised of business, professional and educational leaders. The business and professional members are well recognized as successful in their careers and known as state leaders. The educators include a representative from the chancellor's office, a university administrator, a superintendent, an administrator, two principals and a teacher.

Northeastern has assigned three mentor teachers to travel the state and work on site with public school teachers. A distinguished educator, who holds an endowed chair in education, serves as spokesman for the program throughout the state.

Intended Outcomes

The program is a unique partnership of the Great Expectations Foundation, public education and higher education. The intended result was to retrain teachers who are in the public schools and influence future teachers as they are being instructed at the university level.

Lessons learned

The program has provided a rebirth for countless educators. The combination of a positive attitude and high expectations will literally reform a school. Given the right environment, direction and expectation level, principals, teachers, support staff and students accomplish previously-thought unattainable goals. The dedicated teacher will commit unselfishly and totally to meaningful learning experiences and will generously share with peers. Once the cap on expectations is removed, students will excel at levels never experienced by their teachers and their parents. The teachers will also rise to another level of effectiveness. The constant message of a sense of urgency about reaching the student must permeate the project on a daily basis. University leadership and faculty must be totally informed of the program intent, invited to participate, and encouraged to be in the classrooms and at training sessions. To legitimize the program, the evaluation process of tracking test scores, obtaining anecdotal documentation, and doing in-depth research for the entire program must be expanded. This is critical in convincing educators and financial supporters that the program is truly transforming teachers and principals.

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Northwest Missouri State University

Maryville, Missouri

School University Partnership

The school-university partnership is by definition a collaborative effort bridging a portion of the K-12 community (middle school) and higher education.

Early in 1992 a group of faculty from the two schools began a series of informal meetings to explore the benefits which would potentially accrue from a partnership. This resulted in a planning retreat featuring students, staff, faculty and administrators from the two institutions.

In June of 1993, the boards of the two institutions approved a Memorandum of Commitment to Cooperate; it was signed by the respective chief executive officers. By this commitment, the institutions agreed to provide a program of shared teacher in-service; pursue curriculum development at the middle school using teacher preparation students in methods courses; plan faculty and/or material exchanges for one class period or as long as applicable with appropriate administrative approval; share access to library resources through the (university) Library On-Line Public Access Catalog (OPAC) and knowledge of other available resources; teach portions of related education courses in the middle school; and seek state, federal or private grant funding for teacher preparation laboratory opportunities at the middle level grades.

Intended Outcomes

The program is designed to create a seamless planning model to promote the better meeting of the respective institutional missions. The agreement is between Washington Middle School (a National Blue Ribbon School) and the Education Unit of Northwest Missouri State University. It is believed that decisions made and programs developed with this enhanced participation will result in greater success for both institutions.

Lessons Learned

Once a group of people begin serious discussion of substantive issues which are shared, a great deal of enthusiasm, creativity and momentum result. The following partial list of results bears this out. University faculty served on the school district's blue ribbon (strategic planning) committee (one served as co-chair). A university faculty member co-chaired the middle school bond issue steering committee. A joint in-service workshop on Total Quality Management was provided. A joint task force on middle level certification resulted in the development of a new program to certify middle level teachers. The university planned extension of computing service to new middle school. The partnership sponsored a (university) bus to provide a community tour of Pittsburgh Middle School in Pittsburgh, Kan., (funded primarily by a university institutional grant). A School/University/ Community Team attended the State Middle Level Conference. Partnered faculty presented joint workshops for Plattsburg Middle School, Smithville Middle School, and Savannah Middle School. The middle school principal teaches the Middle School and Middle School Curriculum, both courses offered in the middle school program of the university.

A change being made for next year is to plan for regular meetings each semester for information updates and sharing of plans from various sectors. The momentum seems to be further enhanced and sustained as individuals and clusters of individuals learn what other "partners" are accomplishing.

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The Pennsylvania State University

University Park, Pennsylvania

The Establishment of a Commission on Teacher Education Policy and Programs

On the basis of its mission, visions and goals statements, Penn State's College of Education acknowledged the importance of collaborative initiatives which include, in addition to education faculty, colleagues in disciplines administratively housed in other Penn State academic units, and in the K-12 education enterprise. Colleagues across campus, at various Penn State colleges, contribute to the preparation of teachers and therefore need to be participants in the policy discussions about enhancement of teacher education programs. Likewise, colleagues in the K-12 education settings contribute to the teacher education enterprise by opening their classrooms to various early, mid-program and culminating field experiences sponsored by the college. In addition, they are also potential, future employers of the university graduates. Consequently, all of the above are important stakeholders in the teacher education process, hence the following organizational reform step.

A Commission on Teacher Education Policy and Programs (CTEPP) was established to enhance the centrality of teacher education within the university and to stimulate program development. The commission is responsible for recommending teacher education program changes; monitoring state and national developments within teacher education and their probable impact for Penn State programs; assessing advisability of mounting new or experimental programs; specifying and reviewing indicators of teacher education program effectiveness; encouraging cross-and inter-disciplinary involvement in the teacher education programs; and collaborating with the College's Professional Certification Coordinating Council.

Membership on CTEPP includes associate deans from four of Penn State's nine academic colleges, faculty from four colleges, two elementary school teachers, two secondary school teachers, two school superintendents, two multicultural representatives, two department heads, and the dean of education.

Monthly meetings during the academic year focus on current policy issues in teacher education and on topics explored by four subcommittees focusing, respectively, on alternative teacher education programs, organizational structure, professional development schools and technology.

Intended Outcomes

The intended outcome is to broaden the visibility of, and ownership in, teacher education within the university and among colleagues at the K-12 settings.

Lessons learned

As the involvement of interested stakeholders from the various constituencies increased, there has been a commensurate increase of sensitivity to issues in teacher education in Pennsylvania and nationally. Consequently, a larger university input to the current Pennsylvania process of teacher education revisions was observed. Similarly, because of an enhanced understanding of current teacher education issues, a document defining 10 components of Penn State teacher education programs has been developed by this commission. Further, the

college's network of Schools for SUCCESS (School, University, Community Collaboratives for Educational Salience and Success) continues to flourish due, in part, to the endorsement of CTEPP members. Finally, a new Urban Early and Middle Childhood Education baccalaureate degree program was designed and has cleared the university curricular process promptly, due to the effective groundwork of CTEPP members. This URBED program is designed to prepare teachers for infant education through grade 6 in schools of large metropolitan communities. The mission of the program is to give an understanding of the unique realities that the urban individual, family, and community face. It collaborates with urban schools in the greater Philadelphia area, integrating traditional education theory with an innovative and practical classroom approach. A unique aspect of the program is its highly intensive, field-based focus. Beginning in the junior year, pre-service teachers observe classes and participate in the day-to-day experience of urban school and community activities.

In hindsight, the project might have started earlier with this very effective organizational reform which led to the formation of the Commission on Teacher Education Policy and Programs. It has now been truly operational for about two years. While mechanisms for the desired interaction now occurring existed before CTEPP, those vehicles lacked the broad representation around one table that now occurs. Also, when first constituted, CTEPP did not have all six representatives from K-12 education. This number was expanded only a year ago and it was found that this also would have served the project well from the very outset.

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Purdue University

West Lafayette, Indiana

Professional Development Schools

Purdue University is currently in the third year of reform in the Professional Development Schools (PDS) Initiative. The first year was designed to build communications and establish trust among school-based and university educators. This objective was accomplished through hosting a series of town meetings, guided by a mutually constructed vision statement. By the end of this first year, a PDS Selection Advisory Board (composed of school and university professionals) designed and implemented an application process to establish partner schools. Three school sites were selected: a rural elementary school, a suburban elementary school, and a city-wide school district with key sites at three elementary schools and a high school. A steering committee made up of representatives from each site and from the university (faculty, administrators, and teacher education students) was also put in place. In the second year, PDS committees at each site were formed, including teachers, administrators and university faculty members. These teams met to design action plans that would guide PDS activities at the site. Presently in the third year, site-based teams have begun to implement the action plans. Activities include offering a foreign language methods course at a local high school in collaboration with the foreign language teachers in the building; examining the possibilities for curricular integration in the areas of science and social studies within both

an elementary school and the teacher preparation program; and redesigning a developmental sequence of field experience for elementary education majors in collaboration with elementary teachers in one building.

Intended Outcomes

The reform is aimed at establishing partner K-12 schools that will collaborate with the School of Education in three areas: teacher preparation, the continuing education of all educators, and inquiry into teaching and learning.

Lessons Learned

Over the past three years, the project has taught several things about the process of collaboration. First and foremost, it demonstrated that building trust and communication is a prerequisite for collaboration. This process is not easy or clear cut, but vital for success. Furthermore, it is necessary to repeat this process over and over again as new participants join the reform initiative. Since beliefs about school/ university partnership are individually constructed over time, old conceptions have to be broken to facilitate the building of new visions about collaboration. The relationships established with colleagues define this collaboration; those relationships must be nurtured. Establishing effective avenues of communication within and across all levels of the PDS initiative is critical. Finally, the reward system does not always encourage collaboration in either the schools or the university. Ways must be found to link PDS activities and accomplishments to the rewards system, so that participants are valued for their contributions. This also necessitates finding creative ways to use the limited resources (such as having graduate students serve as substitutes to release teachers for planning sessions) to facilitate the process. These lessons provide direction for the future.

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Rhode Island College

Providence, Rhode Island

Teaching/Learning

The Grove Avenue School, located in East Providence, R.I., is a grade 1-6 elementary school with a large bilingual population. The school possesses the essential characteristics of an urban environment. In 1990, the Grove Avenue School applied and received the Governor's School Award which provided support to initiate efforts of restructuring and reform. A central condition of the Governor's School legislation was the mandate for implementation of site-based management. School-based decisions of policy and planning are the foundation supporting the school's mission. The Governor's School restructuring required the faculty and staff to address: cultural and linguistic diversity; pupil self-esteem; relationships with families; and association with social service agencies that offer support to children and families. The concerns of Grove Avenue School faculty and staff are the issues the college is considering to better understand the relationship of education and the family. The school and the college initiated the collaboration in 1990 through informal discussions over the shared belief that they could learn from and with one another. As a result, the college and the school are now planning and developing a Professional Development School for implementation.

The partnership evolved over the past five years from informal discussions between school and college faculty to provide tutoring opportunities for college students in their first education courses to strategic planning and professional development activities in 1994. Today there are numerous programs which involve the various educational constituencies. There are now four identified categories of partnership activity: teacher preparation and course-related activities; Grove Avenue School and RIC professional development; Grove Avenue School and RIC student programs; and action research and dissemination.

The first category, teacher education, includes classroom observations, tutoring, practicum and student teaching experiences and other school/college interactions that comprise the elementary teacher education program. The second group, Grove Avenue School and RIC development, includes a developmental plan to implement a Professional Development School involving RIC-Grove faculty, staff and the community. The school and the college collaborate on projects such as the School-Based Management Council, social work and teacher education by providing opportunities for faculties in the public schools and faculties in the School of Education and Human Development to work mutually. The third area, Grove Avenue School and RIC student programs, are those that provide school and college experiences for faculty, meet with parents, and work with community agencies in the design of long-term staff development which is relevant to all. The last category and newest area of collaboration is that of the dissemination of action research. In the past two years, Grove Avenue-RIC faculty and administrators have developed and presented topics related to the school-college partnership at state, regional and national meetings. By adding and reorganizing the collection of knowledge about teaching and learning, the partnership is improving the quality of the school and better preparing elementary teachers.

Intended Outcomes

The Rhode Island College and Grove Avenue Elementary School Teaching and Learning Community collaborative provides a clinical setting for classroom teachers, college faculty, school administrators, family members, and community leaders for pre-service teacher education. This environment expands the learning opportunities for elementary children served by the school and establishes a professional development center for school practitioners and college faculty.

The collaborative also provides a setting for school practitioners and college faculty which examines issues of curriculum development such as integrated instruction, portfolio assessment and inclusion of special needs students. Finally, the collaborative provides an environment for teachers and college faculty to extend their professional development by strengthening the relationship between schools and the broader political, social and economic communities in which they reside.

Lessons Learned

This initiative supports teacher education programs by enriching the professional lives of teachers—essential in the development of a Professional Development School. The process of data collection, initiated in fall 1993, reinforces the commitment for the partnership. The evaluation process is ongoing; data are being collected on audio tape, video tape and in journals. A series of interviews was conducted to collect data, examine results, and identify outcomes related to the nature of partnerships.

The study concluded that the RIC-Grove Avenue School partnership and the Grove Avenue Governor's School are indistinguishable. The role of the principal is critical in the establishment and growth of the partnership as well as an essential ingredient in the restructuring effort. The study further revealed that while the partnership needs to be further clarified and strengthened, it is perceived in a positive manner by virtually all constituents. The characteristics of a successful partnership may be identified, but data suggests improvement is ongoing. Finally, resource procurement and financial development is critical to a school-based partnership—a school-based collaborative is expensive.

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Saginaw Valley State University

University Center, Michigan

Unified Elementary Pilot Program: A University/School Partnership

The Unified Elementary Pilot is an outgrowth of a partnership between SVSU's College of Education and Bangor Central Elementary School in Bangor Township Schools. The goal of the pilot is to provide preparation for new teachers that will address the expanding diversity of the elementary classroom and the changing role of the classroom teacher. The focus of the pilot is clearly intended for those who wish to teach in the elementary classroom.

SVSU's College of Education/Teacher Education members and Bangor Central Elementary School (Bangor Township Schools) have organized a pilot "unified" elementary teacher training program as part of the partnership. The purpose of this pilot is to provide realistic preparation of new teachers for the changing K-8 classroom. The program is "unified" in several ways. The College of Education and Teacher Education is unified with Bangor Township Schools in a partnership that permits and supports the pilot. Faculty from special education, elementary and from Bangor Central are unified into an instructional team to direct the pilot program. The subject methodology traditionally taught in separate courses is unified into semester large instructional blocks and taught in an integrated fashion around thematic units. Finally, teacher preparation curriculum designed uniquely for elementary and special education teachers has been unified into a single course of study. A cohort of 25 students, who have applied and been admitted to the College of Education for winter 1995, will be prepared to orchestrate an integrated curriculum in a fully inclusive elementary school. The intent of this pilot is to prepare teachers for elementary classrooms. Students who successfully complete the two-year program will be dually certified in elementary education and special education (learning disabilities).

Intended Outcomes

The goal of the University/School Partnership is to jointly prepare classroom teachers with the skills, knowledge and attitudes necessary to successfully meet the expanding diversity in current K-8 classrooms.

Lessons Learned

The University/School Partnership is a dynamic, evolving process still in its beginning stages. Teaming together to problem solve and respond to the changing learning environment brought about by an influx of extremely diverse learners is a challenging, time-intensive, and growth-producing activity for all involved. Saginaw Valley State University is the only University in Michigan presently piloting such a reform effort.

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Salem State College

Salem, Massachusetts

The New School at the Saltonstall

This reform effort began with the first AASCU Teach America Conference in 1992, when Salem State College paired with the Salem Public Schools to effect meaningful educational change. A year later, these two entities began to redefine education in the city by planning for a new "break the mold" elementary school. A committee was assembled, comprised of teachers, professors and parents. In August of 1994, a director was named for the project.

Scheduled to open in September of 1995, the new Saltonstall School will be remarkably different. A great deal of thought has gone into the marriage of best instructional practice, a thoughtful curriculum and the affective side of teaching and learning. The school will operate on an extended-day, extended-year schedule to enhance accomplishments and to better utilize time. Creative use of the latest in educational technology will be emphasized.

The school will be an "incubator" for ideas from college staff through the New School Collaborative. The collaborative will serve as a conduct for information and expertise and be the catalyst for action research projects. Student teachers and interns from Criminal Justice, Nursing, and the School of Social Work will also receive on-site experience at the school.

Intended Outcomes

Salem State College and the Salem Public School System collaboratively joined to initiate the planning and actual opening of a true "break the mold" school - the New School at the Saltonstall. The outcome of this joint effort is to provide a model of a humanistic, student-centered community of learners in which teaching and learning are the province of all the school's members and in which assessment is continual and effective in informing practice. In addition to providing examples of what can happen when a group of individuals follows the research, shares expertise, and dares to dream, the school will be a site for undergraduate field experiences and practica, graduate level field experiences and clinical experiences, graduate student and faculty research, and a scholar-in-residence program for Salem State faculty members and other academicians.

Lessons Learned

Probably the single most important kernel of knowledge that was gleaned from this project was the wisdom of enlisting the aid of many individuals. In addition to the main committee responsible for providing the initial vision for the new school, sub-committees comprised of full committee members and other interested individuals were established to broaden the input base. Additional individuals also joined the project as independent, ad hoc consultants interested in furthering the cause in a single domain. Beyond these groups, an advisory panel of nationally-known experts in education reform, leadership, curriculum and policy was assembled.

Custodians, food service workers, maintenance workers and many others were also consulted, especially in the area of building renovation. All had contributions to make and needed to be heard. True reform can occur, it would appear, when the barriers that speak to territoriality are broken and dialogue is free-flowing.

More planning time would been worthwhile.

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Salisbury State University

Salisbury, Maryland

Center for Technology in Education

This effort was initiated by the business community through an area community improvement organization, it was then expanded to involve all of the higher education institutions, the community colleges, the public school districts and the private elementary and secondary schools. The project is devoted to enhancing elementary and secondary student learning through collaborative teacher development.

The Center for Technology in Education provides pre-service enhancements in the teacher education programs of Salisbury State University through enhanced courses and seminars as well as support for faculty in using technology in regular courses. Its activities in in-service teacher education have been its most active programs, providing seminars and training sessions for teachers and other school personnel across the Eastern Shore of Maryland. In doing so, the center serves as a clearinghouse of resources (technological and professional) used for training. Personnel and computer labs throughout the area are used. It is planning a state of the art lab for exploring application software and the installation of a routing center to make the various networks readily available to all parties.

During the first 12 months of operation there have been 97 events (conferences, training, presentations, etc.) serving 3,958 participants. The CTE is governed by a steering committee of representatives from each of the major stakeholders—public and private schools, business community, community colleges, and four-year institutions.

Intended Outcomes

The project is designed to provide enhanced technology education for the elementary and secondary students of the Eastern Shore of Maryland; a total of nine counties. This to be done through the expansion of pre-service and in-service education of teachers.

Lessons learned

Many lessons have been learned in the conceptualization and implementation of this center. Among them are that the support and involvement of the business community has a significant effect on gaining support from the schools and the universities. The schools involved have been particularly interested and committed to the services of the center. They are keenly desirous of better technology in and for education.

There are significant financial implications for all concerned; technology hardware and software are expensive. A broad sense of ownership in the center is crucial An operation like this demands a special kind of person as director—one who is technologically and educationally skillful and who is willing to work very hard.

Many lessons are yet to be learned as the center matures and expands its functions.

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San Diego State University

San Diego, California

SDSU/Kennedy Elementary Demonstration Laboratory Program

This program is a true and extensive collaboration between SDSU's School of Teacher Education and San Diego City Schools' Kennedy Elementary School. This collaboration includes a school-based teacher preparation program, a master's degree program for in-service teachers, a college-awareness program for students in fourth and sixth grades (which includes week-long annual field trips to SDSU), a before-school mathematics enrichment program for students in grade two through six, and family involvement activities. University professors and Kennedy School master teachers team-teach courses for student teachers and for children and activities for families throughout the year. For example, master teachers and student teachers teach before-school mathematics enrichment sessions for 66 hours each year. With the guidance of university faculty and master teachers, student teachers plan and conduct Family Math Fairs and an Invention Convention. Teachers, university faculty and student teachers plan annual field trips to visit SDSU and learn about college life. University faculty, student teachers, master teachers, children and parents participate in all facets of this collaboration.

Intended Outcomes

This program improves teacher education and K-12 education through the collaboration of SDSU's School of Teacher Education and San Diego City Schools' Kennedy Elementary School. SDSU faculty and student teachers and Kennedy Elementary School's teachers, children and

parents work together to help student teachers and in-service teachers learn about teaching in a diverse society and help children prepare for college and careers in the 21st century.

Lessons Learned

Collaboration is vital to the success of teacher preparation programs and also increases the effectiveness of K-12 teaching. This collaboration has increased student teachers' understanding and ability to teach effectively and include parents and the community in children's education. Project participants are working together to continually improve and enhance the collaboration. For example, opportunities for undergraduate students (before entering the teaching credential program) to observe and interact with teachers, children and student teachers in program should be expanded. The project intends to electronically link all groups in this collaboration, in order to improve communication and increase the possibilities for interaction.

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Model Education Center

The Model Education Center (MEC) is a collaboration of the San Diego State University with K-12 and the community. University professors and teachers employed by the partner school district design a carefully planned experience for pre-service teachers delivered entirely in two elementary schools.

The MEC is housed in a school district serving 18,000 students, 30 percent of whom are non-Anglo and 10 percent of whom are English language learners. Now in its ninth year, the MEC resulted from 12 months of planning for the implementation of change, and the careful addressing of the educational needs of each of the partners. Goals for three-year cycles are established to move the partnership forward. Current goals include: implementing a thinking/meaning-centered curriculum to improve achievement of elementary students and create a more positive school climate; enhancing the professional growth of classroom teachers through opportunities to teach at the MEC or to participate in staff development activities; providing collaborative on-site preparation and supervision of SDSU student teachers based on effective teaching-learning strategies; offering opportunities where exemplary classroom and supervisory practices could be observed; and creating close university, district, parent and business cooperation in shaping teacher training and curriculum coordination at the MEC.

Each academic year a cohort block of 30 student teachers participate in the program at the MEC. Although originally based at one school site, two years ago, when the district built a new school, a handsome university facility was incorporated into the structure. Students now spend time at both sites for instruction and supervision.

New teacher support is also a major activity of the partners, in addition to an emphasis on the professional development of veteran teachers. Further, a master's degree program has been developed for teachers in the district and is delivered at the MEC.

Intended Outcomes

The San Diego State University-Cajon Valley School District Model Education Center is an educational partnership that was formed for the purposes of developing a field-based training center where the educational expertise of each of the partners could respond to the professional needs of pre-service, first-year and veteran teachers.

Lessons Learned:

A teacher education partnership requires great amounts of time and effort. The trust and commitment that develops enables partners to relinquish certain amounts of control and allows for greater willingness to take risks. The leadership is drawn from individuals involved in the formation of the partnership vision; those individuals who participate in vision building express enthusiastic support for the program they have shaped.

The unexpected is truly the expected in a collaborative change action. The bonds established during the development of the collaboration have served the partners well whenever problems or setbacks have occurred. These bonds also have helped move the venture forward when resistance has been encountered. Persistence, patience and a willingness to work toward keeping the best and changing the rest have become the earmarks of the partnership. Three-year strategic plans, mid-course evaluations and built in process for change have been essential ingredients of the program's success.

In retrospect, the recent introduction of a second model school site has caused tension in the partnership, especially among the teaching staff of the two elementary schools. The original partner school staff has had to adjust to the involvement of the new facility and this process has caused some friction.

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San Francisco State University

San Francisco, California

Bay Area School Development Program

The Bay Area School Development Program is a multi-faceted institutional reform initiative which addresses the chronic failure and under performance experienced by so many children in urban schools. This initiative was designed and is being implemented by a collaborative institutional partnership between San Francisco State University, Oakland Unified School District, Ravenswood City School District in East Palo Alto, and San Francisco Unified School District.

The partnership is currently implementing James Comer's School Development Program in 10 participating schools (two elementary schools, one middle school and one high school in Oakland, two elementary schools in Ravenswood, and four elementary schools in San Francisco). University administrators and faculty, and school district administrators, staff and faculty are working collaboratively to implement the Comer Model and to provide strategies for strengthening university professional preparation programs.

University and district partners support participating Bay Area schools by providing resources and staff/family development opportunities to implement the School Development Program (SDP). They use the talents and interests of parents, families and school staffs as collaborative decision makers to develop policies, procedures and instructional activities that attend to each child's intellectual, social, physical, cultural and emotional well-being, to lay the foundation of learning, and to positively affect the academic and social climate of each school.

Among the partnership's goals are to build upon the principles of the Comer Process, tailor and enhance the SDP model to meet the needs and circumstances of schools in the Bay Area, particularly regarding the cultural and linguistic diversity of students and families; support implementation of the enhanced SDP model at 10 school sites; promote and support quality instructional programs and services which improve student learning and performance; promote coordination and integration of services to children and their families; develop and implement effective training programs for pre-service professionals who are/will be working in schools using the SDP model or involved in other restructuring, school improvement or integrated children's services environments; and establish a Regional Training Center for the School Development Program at San Francisco State University to disseminate an enhanced model of SDP to other schools, districts and universities seeking to implement this or similar school improvement and restructuring programs at their institutions.

Intended Outcomes

The purpose is to implement Comer's School Development Program (SDP) in 10 participating schools to promote the well being and achievement of urban children from diverse social and cultural backgrounds by engaging families, school personnel and the community as well as students in a process through which healthy child growth and development become the guiding focus and goals of the entire school community.

The project is also intended to bring together academic, political, economic and social services communities to assure that all students in participating schools will receive a comprehensive approach to their education, which is completely driven by a child-development framework, focusing on academic achievement in a school climate that fosters the overall development of students.

Lessons Learned

The partnership, now in its third year, has been effective in providing opportunities for district and university personnel to work collaboratively in implementing the Comer Process, addressing similar problems and developing solutions that have been applied across districts.

The collaborative has required that education and social service professionals, parents and community members not only learn about each others' disciplines and perspectives, but also learn how to work together when coming from many different linguistic and cultural backgrounds.

It is important to introduce the Comer Process to principals first, allowing the principals to process the orientation before introducing the School Development Program to other school staff. Sufficient time must be devoted to the school site orientation phase before proceeding to the implementation phase.

A major difficulty in implementation has occurred as a result of changes in personnel at the school sites. Principals and staff have been reassigned or retired and have been replaced by other personnel unfamiliar with the Comer Process. The training of two on-site facilitators (teachers, resource personnel) has been incorporated to address this issue.

The complexity of working collaboratively with 10 schools in three districts has been compounded by having key participants geographically separated and also having conflicting schedules. Maintaining adequate communication has required significant amounts of time and energy and we continue to work on this.

The participation of university administrators and faculty in this partnership has resulted in changes in the pre-service curriculum of school administrators, regular and special educators, and social service professionals.

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Shippensburg University

Shippensburg, Pennsylvania

Establishing a Reading Recovery Teacher Leader Training Site

The Reading Recovery Network operates in schools where specially trained teachers work with children. These district teachers are trained by teacher leaders in the theory and practice of the program. Teacher leaders are trained at university sites. The university instructor of teacher leaders, works with children, trains these teachers, and maintains a regional training center.

The uniqueness of Reading Recovery at Shippensburg University is the total collaborative effort required to establish the university as a regional training site for teacher leader training. The Pennsylvania Department of Education, National Diffusion Network, the Pennsylvania Reading Recovery State Interest Group, and the Ohio State University worked together with Shippensburg to develop the site. The university teacher education faculty supported the efforts by releasing a faculty position for an instructor of teacher leaders. The establishment of this state training site provides an opportunity for districts in Pennsylvania to send teachers to a state training site rather than a more costly out-of-state center. The site location provides a way for teacher leaders in training to implement the Reading Recovery Program with children in their home school districts during their training year.

Intended Outcomes

Two of the most important outcomes of Reading Recovery are to enable at-risk children and families to develop successful reading and writing skills and to assist classroom teachers and university professors in looking at the development of literacy through a child's strengths rather than weaknesses. To accomplish these goals, higher education teacher preparation programs work closely with basic education through continuing contact as Reading Recovery teachers and teacher leaders are trained.

Lessons Learned

After two years of planning for the establishment of a Reading Recovery site and beginning a first class of teacher leaders in training, numerous lessons have been learned. Among them are that any time a higher education institution works collaboratively with basic education, both establishments are afforded the opportunity to understand the politics of education from diverse perspectives. This understanding provides a basic foundation for future partnerships. All ideas are respected and considered.

If a project such as Reading Recovery is important and meaningful to its supporters, the project will succeed. Insurmountable obstacles are removed when all believe that children are helped to succeed. However, if secondary factors such as money, personalities and time overtake the primary purpose of the project, then the project may not develop its full potential. Whatever the project is, the concept must become primary to all participants.

In rethinking this project, more time could have been spent related to team building before the first classes began. More dialogue could have occurred regarding the changing roles of personnel in previously established school district sites in Pennsylvania.

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Slippery Rock University of Pennsylvania

Slippery Rock, Pennsylvania

Thematic Teaching

The thematic and collaborative teaching program at Slippery Rock University includes, but is not limited to, the development of curriculum handbooks on specific topics. The final product then becomes a valuable resource for teachers in local school districts. Thematic units have included Columbus & the Age of Discovery (1991); Mini-Dragons, East Asian Economic growth (1993); The Congo Expedition (1994); Instructional Resources for Ken Burns' BASEBALL (1994); Teaching (Maya Angelou's) "On the Pulse of Morning" (1993); and Our Changing World: New Nations Emerge After the Soviet Union (1992). The handbooks include informative articles produced by professors and students on the theme, but from a variety of disciplines. Local teachers work with university faculty to produce learning activities to match the articles, as well as edit the articles for readability and usefulness in the classroom (depending on the grade-level being targeted). The process involved in producing the handbook is as valuable as the final product. Collaboration between public school teachers, faculty and students provides a dynamic environment of interaction. The result is a truly interdisciplinary treatment of current topics that can be used by the classroom teacher easily and effectively.

Intended Outcomes

Through thematic teaching projects developed by the university, teachers in Western Pennsylvania are able to incorporate new curriculum (methods and content) materials into their classrooms, interact with professionals in higher education (methods and content areas) in producing the materials, as well as access and utilize the wealth of resources a university can bring to curriculum development. The projects themselves provide a regular forum for dia-

logue between K-12 and higher education professionals, thus furthering the common goal of providing an excellent education for all of our students.

Lessons Learned

Collaboration creates a highly productive working environment. An interdisciplinary approach to education, in which information is imparted in new ways, is a critical part of teacher education.

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Sonoma State University

Rohnert Park, California

Educator in Residence

The School of Education at Sonoma State University announced a new position, Educator in Residence, to all districts in the service area. The Educator in Residence (EIR) is an experienced, highly qualified classroom teacher or K-12 administrator who remains employed by the district but is assigned full time to the university for one to two years. At the university, the EIR teaches classes, supervises student teachers, conducts action research, and serves on faculty committees. The first EIR was selected from among 40 applicants and is bringing a most important array of skills and experiences to students. The EIR is replaced in the school by a recent graduate of SSU's program, selected by the school in conjunction with the university. The replacement educator is an employee of the university, assigned full time to the school. This novice educator receives an opportunity to teach full-time at the prevailing salary and the school receives an opportunity to "try out" a beginning educator. The EIR returns to the district having experienced the renewal associated with her/his service at the university as an EIR.

The Educator In Residence program has improved the university's working relationship with its K-12 colleagues. The program promises to restructure this relationship to the point where K-12 educators and university educators will serve as true partners in the preparation of teachers.

Intended Outcomes

The Educator in Residence program seeks to improve the quality of instruction for students in the basic credential program and restructure the collaborative relationship with K-12 educators.

Lessons Learned

The project has revealed that the first semester transition is difficult, and to some extent, the teaching load of the EIR should be initially limited. A two-year term of service, if possible, seems to be best at this time. This program has been most beneficial to students, the EIR, the replacement (novice) teacher and the program. The program is cost effective because the university gets the services of a veteran teacher for the cost of a beginning teacher.

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Southern Illinois University at Edwardsville

Edwardsville, Illinois

BEST (Beginning Educator Support Team)

The BEST program is an induction program for new teachers sponsored by Southern Illinois University at Edwardsville. It begins with a university solicitation of districts to nominate their new staff members for this program prior to the start of the school year. The program, while entirely voluntary, has grown from 30 teachers in 1986 to over 275 in 1994. The local districts are required to identify an appropriate mentor for the new teachers. Additional team members include the local principal and, in limited cases, university faculty. Monthly seminars are provided for all BEST teachers, giving the new teachers the opportunity for structured interaction with peers, extended discussion of issues of special relevance to new teachers, and provision for reflective inquiry into events occurring during the past month in the inductee's life. Funds are provided for released time for BEST teachers to visit classrooms of area master teachers and to attend additional professional development activities.

The BEST program is supported by regular state allocations at a level of approximately $20,000 each year. Additionally, tuition waivers are provided to the BEST teachers and their mentors, which further stimulates ongoing professional development.

Intended Outcomes

The BEST program is a teacher induction program designed to provide both school-based and university-based support to insure the successful introduction of new teachers into the teaching profession.

Lessons Learned

The 10 years of existence of the BEST program have primarily demonstrated the need for and the support of an induction program for new teachers by area school leaders. The growth of the program to over 275 new teachers attests to this support. Additionally, a number of area districts with large numbers of new teachers have adopted the program for their internal use and sponsor their own "BEST" program for their new teachers.

The project demonstrates that the opportunity for new teachers to interact professionally with other new or experienced teachers is limited. The time spent in this interaction at each monthly seminar is well spent and must be protected from the temptation to always be talking at new teachers. New teachers, while better prepared then ever before, still learn more in the first days of teaching than they did in years of teacher preparation programs. For example, discussion of management techniques takes on an new reality after a teacher faces his/her own classroom. This suggests that graduate study in education should be combined with or follow, rather than precede, induction into the profession.

Several things need to be done differently in this program which could make it more successful. For the program to have a greater impact on the university community, greater effort is needed to involve faculty from all over campus in serving as university mentors. To do this, increased time is needed to coordinate this program. This effort will be made in the 1995-1996 school year.

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Project CARING (Children at Risk: Initiating New Gateways)

Project CARING is a multifaceted, university-based effort to restructure the educational process in one of America's most troubled school districts, East St. Louis, Illinois. The combination of diminishing resources, low achievement, low attendance, and low morale have created a school district which offers little hope to its students for an adequate education. Recently, the State Board of Education has taken over financial control of the district. To address this dismal situation, Project CARING is attempting to marshal the resources of the university, the community, and area leaders to create a new vision for the school in the district. The results of this intervention, while not dramatic, have been promising. Included in this effort are the building of a team approach to decision making within the school involving teachers and parents in this process; providing increased social service support to the students and their families and coordinating this effort with existing social service agencies in the community; laying the groundwork for a conversion of the school from a traditional junior high into a middle school; partnering university faculty with local teachers to encourage methods which better meet students needs; coordinating health efforts within the community to address the health needs of the school population; and actively involving parents and other community persons in school activities.

Intended Outcomes

Project CARING is a partnership between Southern Illinois University at Edwardsville and School District #189 of East St. Louis, Ill.. It is intended to restructure education within that school district, to increase student achievement and attendance, and to improve student attitude toward school and learning.

Lessons Learned

The most significant learning to this point is that restructuring is difficult and slow. A school district that is daily struggling for survival has a difficult time looking to the future with any sense of vision. The development of that vision is a major task.

The major accomplishment, to this point, has been the establishment of more positive climate in one of the most difficult schools in the community. Achievement is improving and the retention rate of students has grown dramatically. What was once perceived as the worst junior high in the community is now seen as one of the best. However, attendance is still poor, instruction is still rarely focused on thinking skills, and discipline problems are widespread.

One area which would be approached differently is obtaining a high level of local district commitment to the project. This cooperation has been hampered by the district having four superintendents in the past three years. Having to rebuild support with each new administration has been difficult. Additionally, one should never underestimate the depth of mistrust and resentment urban communities feel toward the universities in their midst. To dispel the belief that higher education institutions are in urban communities only to use them for research purposes and to get grant money, takes much time and never completely occurs. To be viewed with hostility because you are an outsider, a professor and white is a very humbling, educational experience.

All in all, however, the good far outweighs the bad and the rewards of a university in partnership with an urban school system are significant.

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Southwest Texas State University

San Marcos, Texas

Center for Professional Development and Technology

The Southwest Texas Center for Professional Development and Technology (SWT-CPDT) is a school/university/community partnership that focuses on restructuring teacher preparation in Professional Development Schools in the Central Texas area. Since 1992-93, 11 Professional Development Schools have been established through the SWT-CPDT. Extensive technology, including two fully interactive classrooms linked via the fiber optic telecommunications cable, has been introduced and integrated into the educational programs at these various sites.

At the PDS sites, university professors and public school educators jointly plan and deliver teacher preparation programs. Professional teacher preparation courses are taught in blocks which enable students to spend half and full days at school sites. Instructors teaching in the block program are better able to prepare students to deal with the holistic nature of teaching than was the case previously when education courses were delivered on the university campus. Student teaching blocks have also been implemented. At the PDS sites, teachers, administrators, professors and parents participate in professional development activities that focus on enhancing personal and professional capacity to create inclusive learning communities.

Families also have opportunities to learn technology together in PDS computer labs; parents participate in thematic learning activities in their children's classrooms. The SWT-CPDT also coordinates activities with the districts' parent volunteer, adopt-a-school, and parent education programs.

Intended Outcomes

The SWT-CPDT is a school/university/community partnership formed to better prepare teachers to meet the diverse needs of all students and to prepare them to live productively in the

21st century. University faculty and public school teachers work together to design and deliver the teacher preparation programs in public school settings and to promote the professional development of all educators at these sites.

Lessons Learned

Field-based teacher preparation is a more viable way to acquaint teacher candidates with the complexities and realities of teaching in today's school. At the same time, the potential for implementation problems is also great. The experience has demonstrated that these problems primarily relate to the faculty's ability to work with public school counterparts, to integrate course work, and to become assimilated into the school site. Other key problems relate to program costs, faculty workload, and balancing the requirements for promotion and tenure with the demands of working in the field.

Change can be both a rewarding and painful process that is incredibly time consuming and labor intensive. The up-front time spent in team building and learning to collaborate saves time in the long run. The transition period between the old program and the new program is both necessary and frustrating. Changes and adjustments were made at every step of the way; this has been difficult for those who are uncomfortable with ambiguity.

The amount of planning that has occurred at the various sites prior to beginning a field-based blocked experience has varied from site to site. In hindsight, a full planning semester should be structured prior to moving into a new site.

Nonetheless, as teacher preparation programs move off the university campus and into public schools, the stakeholders must work together as equal partners to resolve the many issues related to program and resources. Each role group has both added value to the total endeavor and has benefitted from their involvement with the other players. It is a true win-win-win collaboration that has generated positive outcomes related to teacher preparation, teacher development and effective instruction for children.

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State University of New York at Oswego

Oswego, New York

Partners in Education: Teacher Preparation

The reform initiative involves the partnering of the education faculty of SUNY Oswego, the Syracuse City School System and Onondaga Community College. The constituencies meet to develop strategies for attracting candidates of under-represented populations to teaching in urban areas at the high school, community college and four-year college level; design curriculum that is relevant to the future needs of these candidates; prepare support systems to assist candidates as they move through the SUNY Oswego program; and discuss ever-rising issues in a collaborative manner.

The three-pronged initiative involves partnering with a large suburban school to prepare provisionally-certified teachers for the future, to provide faculty development for a large population of tenured teachers, and to encourage applicable research. The faculty of the school serve as mentors to education students as they move through the program, assisting with student teacher placement. The college offers graduate level courses on site for in-servicing the school faculty. In addition, the college faculty as well as graduate students are available to assist and encourage the public school professionals in designing and executing pertinent research.

Intended Outcomes

The curriculum and instruction department has begun two significant initiatives for the purposes of partnering with professionals in the field and with colleagues at a community college to prepare elementary and secondary teachers. One initiative is designed to increase the number of teachers from under-represented populations with a focus on teaching in urban settings. The second has a three-pronged goal: the preparation of provisionally-certified teachers, the development of public school faculty, and the development of more research initiatives relevant to the needs of regional schools.

Lessons Learned

Partnerships take much time and effort to develop and can be gratifying and frustrating, at the same time. There must be trust between all constituencies.

A department or School of Education cannot wait for all faculty to be in agreement about the need for partnerships. There is a need for working in concert with other professionals. The interested parties must move forward.

Many resources are needed. Grants or outside funding must be sought. Application for outside resources must begin immediately.

The meaning of partnership should have been defined earlier. All constituencies should begin work at the same time. Assign one person the responsibility of coordinating all partnerships, i.e. being aware of implications of each partnership on previously developed alliances and established programs. The partners should meet on a frequent and regular basis.

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Tarleton State University

Stephenville, Texas

The Effective Schools Project (ESP)

Tarleton State University has a long tradition of working side-by-side with area school districts. The university is located in Stephenville, Texas, a rural area in the central part of the state. As such, the university is surrounded by many small, rural districts. (There are approximately 200 districts in a 125 mile radius of the campus.) The Effective Schools Project (ESP)

was initiated at the request of progressive schools in the area who were interested in working together and with the support of the university to systematically reform their school, applying research-based practices to achieve improvement in learning opportunities for their students.

ESP campuses apply for membership in the network, with admission contingent primarily upon their development of a specific improvement plan addressing priority learning needs of their students. Campus leadership teams, comprised of the principal and at least two teachers, are established at each participating school. The leadership teams must participate in all ESP activities. New members attend a day-long orientation, focusing on effective schools research and providing an overview of project operations. During the school year, leadership teams attend six seminars held on the university campus. These seminars feature important national speakers addressing the correlates of effective schools. Specific topics and speakers are identified by a Project Advisory Board. Each seminar also includes opportunities for participation in study group sessions; each session addresses practical school improvement issues. These study groups are facilitated by TSU faculty mentors. TSU faculty members also act as facilitators for each campus leadership team during their first two years of participation in the project, working with the team to "flesh out" the campus plan and acting as a consultant to support implementation. Finally, campus teams participate in annual planning retreats, as well as professional field trips to visit benchmark schools across the nation.

Intended Outcomes

Tarleton's Effective Schools Project is a collaborative school improvement partnership between the university and over 50 rural schools in the TSU service area. It is intended to promote awareness of the research on effective schools, to provide professional development to support planning and implementation of campus-based improvements, and to provide a network of school-university practitioners to facilitate continuous quality improvements in participating schools.

Lessons Learned

In its eight-year history, the project has worked with over 150 rural schools, assisting each in designing and implementing its own school improvement initiatives. From its first-year membership of 15 school districts, the project has grown to include over 50 schools and five educational service centers. Many of these schools have been recognized by the state for their academic achievements, and several have been designated as Mentor schools or Partnership schools. Fourteen TSU faculty members voluntarily participate in the project, working side-by-side with participating districts to guide the improvements at the school site. In 1993, the Effective Schools Project was awarded the "Showcase of Excellence" award by the National Council of States on In-Service Education, designating it as one of the nation's exemplary school-university collaboratives.

The project has demonstrated that the work of reforming smaller, rural schools is perhaps more complex and challenging then in many larger school systems. There are, however, many dedicated teachers and administrators committed to making such improvements for their students. Working with these committed professionals is both inspirational and instructive to the university mentors who voluntarily serve in the project. The work of ESP has truly been a labor of love for all involved, and has demonstrated tangible improvements for all participants.

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Towson State University

Towson, Maryland

Towson State University/Baltimore County Public Schools Prekindergarten Collaborative Project

In this partnership project, cost, design, development, implementation, supervision and assessment are intended to be achieved through collaboration between the Early Childhood Education Department in the College of Education at Towson State University and the office of Children and Families and selected schools in the Baltimore County public school system.

Two major components of the Baltimore County Public Schools (BCPS)/Towson State University (TSU) Prekindergarten Partnership Project are induction-year mentoring and pre-service clinical experience. Six first-year teachers (project teachers), hired as contractual employees of TSU, conduct prekindergarten classes in the public schools. Following the existing BCPS prekindergarten curriculum, project teachers function as regular faculty members in their respective schools. An induction-year mentoring program for this cohort is provided jointly by BCPS and TSU. While the TSU project director serves as the primary mentor, project teachers receive additional services through BCPS staff development and TSU monthly support sessions with on-site supervision provided jointly by BCPS and TSU. The project classrooms serve as clinical sites for TSU pre-service teachers. These pre-service teachers, enrolled in their first field experience course taught by the TSU project director, spend one half day per week in their assigned prekindergarten classes. The project teachers receive guidance for their role as clinical teachers during the TSU monthly support sessions. On-site supervision is provided concurrently for the pre-service and project teachers by the project director. Continuous assessments using journals, videos and portfolios is conducted throughout the project.

Intended Outcomes

The intended outcomes of this teacher education reform include the development and implementation of an induction-year mentoring program for first-year teachers and the use of the first year teachers' prekindergarten classrooms as clinical sites for early childhood education pre-service teachers. These intended outcomes will be achieved through the collaborative efforts of the Baltimore County public schools and Towson State University.

Lessons Learned

This collaborative project is currently in its second year of funding. The significance of a strong mentoring component in the induction year was validated by the success of the 1993-1994 project teachers and their subsequent hiring by BCPS as full-time teachers in the school where each began as a BCPS/TSU project teacher. They are assuming leadership roles in their schools and the school system. While it is not common practice to place pre-service teachers in clinical settings with non-tenured teachers, the project staff learned that a triad of first-year teacher, beginning level pre-service teacher, and course instructor/project director can form an effective teacher education team. In this clinical setting, the first-year teacher had to

reflect and verbalize for the benefit of the pre-service teacher with communication facilitated by the project director. With a first-year teacher as a model, the pre-service teacher felt the goal of becoming a successful teacher was attainable. Changes and additions made as a result of first-year findings and recommendations include monthly videotaping of project teachers for viewing at cohort support sessions, continuing involvement of 1993-94 project teachers as resource persons, and development of clearly defined outcomes for clinical experiences. A major change to be implemented in the coming semester involves rescheduling the field experience course to allow class sessions to be held at the project sites.

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Owings Mills Professional Development School (PDS)

This partnership has resulted in the creation of a PDS at Owings Mills Elementary School (OMES) in Baltimore County, Md. As a center for best educational practice, outstanding educators from throughout the school system have transferred to OMES to improve teaching and learning for the entire school community. There has been a commitment to simultaneous reform reflected in a fundamental restructuring of teacher education and its movement from the university to the school site, shared decision making, and action research to generate best instructional practices for students.

In fall 1994, Towson State University and the Baltimore County public schools embarked upon a collaborative relationship designed to improve elementary instruction through a restructuring of pre-service and in-service education. The Owings Mills Elementary / Towson State University Professional Development School engaged in participatory decision making by allowing teams of teachers, parents and TSU collaborators to drive the instructional program. Major components include faculty in-service on site-based management and collaboration, OMES faculty involvement in pre-service training of TSU students, integration of campus-based and field-based curriculum units in a two-year extended internship with courses taught on site by TSU professors working closely with school faculty to link theory to practice through an integrated and interdisciplinary approach to professional education courses, and a commitment to research and improved instruction through a continual assessment process. OMES teachers serve as adjunct faculty for undergraduate courses and work with interns and student teachers. TSU faculty provide opportunities for professional development and support community and parent activities. TSU students benefit from increased classroom experiences. A school culture changes as pre-service and in-service teachers and college faculty work to develop a common vision which includes continual refinement of skills and strategies to improve teaching and learning for the school community.

Intended Outcomes

Within the context of the national reform movement in teacher education, and specifically in the conceptual framework of the current Maryland Higher Education Commission (MHEC) - Maryland State Department of Education (MSDE) initiative to reform teacher education in Maryland, Professional Development Schools (PDS) are envisioned as a desirable, clinically-based theory and practical program vehicle. Through a collaborative effort between Towson State University (TSU) and Baltimore County Public Schools (BCPS), students, pre-service

and in-service teachers, and OMES and TSU faculty have coalesced to form a critical mass in a collegial environment so that cooperative learning among all groups can facilitate a restructured teacher education program and exemplary clinical experiences in a setting where "best" instructional practice is common.

Lessons Learned

Early and ongoing planning is essential. The time needed to plan and initiate school/university partnerships is enormous for both institutions. Time for joint discussion, planning, and goal setting is only one kind of time needed. Both institutions must also have time to work within their own frameworks to develop an understanding of and support for these restructuring efforts. While this was factored into the initial planning, there is never enough time. Restructuring involves many resources including TSU and OMES faculty time, duplication, public relations, travel costs, speakers, graduate courses and substitutes. Secretarial support is needed for research and dissemination projects. Resources should be allocated by both institutions and responsibilities clarified early in the process. A research plan should be an early consideration, including an independent research coordinator or external evaluator to maintain objectivity. A very extensive documentation and research plan was developed collaboratively with teachers at OMES. Faculty rewards will need to be redefined as scholarship, service and teaching move from campus to public school sites. Communication with faculty and administration at the campus institution is essential to keep all parties informed of the changing roles and work patterns required of faculty involved in project activities.

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The University of Akron

Akron, Ohio

Decker Family Development Center

The Decker Family Development Center is a collaborative project of Barberton City Schools, Children's Hospital Medical Center of Akron, and The University of Akron with the cooperative efforts of the Summit County Department of Human Services and the Akron-Summit Community Action Agency. It clearly exemplifies higher education collaboration with K-12 and the community.

Through a collaborative effort, The Decker Family Development Center offers a multitude of services to low-income, multiple-risk families in a single site, holist approach which provides access to medical health, educational and social support services. Services include child care (ages birth to five years), parent education programs (e.g., Parents As Teachers—PAT), nurturing programs, parent/child education classes, family literacy (Adult Basic and Literacy Education) classes, shadowing programs, pre-employment training, New Visions displaced homemaker programs, family health care, nutrition education, mental health care (including crisis counseling, therapy, stress management and adult emotional growth and management), case management services, home visitor and outreach services, public assistance eligibility evaluations, and computer commuter literacy services.

Services for preschool children include the learning center program (six months to three years), infant enrichment programs (six weeks to 16 months), toddler enrichment programs (16 months to 30 months), preschool enrichment/wrap-around child care programs, gross and fine motor development programming, special needs preschool, developmental kindergarten, Head Start, speech and hearing assessment and intervention, pediatric health care, occupational and physical therapy, mental health care (including child emotional growth and management), food services, foster grandparenting, and a toy lending library.

Intended Outcomes

The Decker Center provides comprehensive medical, educational, social and mental health support services to low-income families at a single location. It is designed to help families develop a readiness to learn in their children (birth to age five), prevent future school dropouts and assist adults as they strive to become self-sufficient.

Lessons Learned

For a program like this to succeed, true collaboration must occur. A relationship of trust and collegiality must be developed among participating agencies. There is no room for "turf" issues. The community in which the program resides must believe in the value of the program, and the relationship with participants must be built slowly and with care so as not to become an imposition. The needs and interests of the participants must be basic to any programming. It is best to start with several large collaborating agencies and gradually add services as the need and opportunity arise. Building a basis of support from a variety of sources will provide stability and keep the center from being dependent on any one.

This program has grown slowly and deliberately and has avoided any major problems. Those changes that have been mandated are those of staffing and program content. These types of changes will probably have to be made in any developing program.

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University of Arkansas at Little Rock

Little Rock, Arkansas

Break the Mold Teacher Education

Successful reform in teacher education requires simultaneous, coordinated change at all areas and levels of education. All segments of the educational system, and particularly higher education units for teacher education and K-12 teachers, must cooperate in planning and implementing the system-wide reform.

UALR is Arkansas' only metropolitan university. The North Little Rock School District is one of the largest urban districts in the state. Urban school personnel need special preparation and ongoing education to meet the demands and needs of inner-city learners. Simultaneous reform, as defined through this program, involves all areas of urban higher education and public schools in basic change.

Reform activities included: assess priorities for professional growth (UALR and NLRSD); review and revise teacher education curriculum; design learning activities; evaluate professional development activities; maintain programs that work; recruit and retain minority teachers; stimulate research on teaching and learning; and disseminate models of exemplary educational practice.

Each of the activities adheres to the following process: reaching a mutual understanding of the roles of each stakeholder; designing collaborative administrative and operational structures for each activity; building team relationships that recognize all participants as full partners; determining priorities for professional growth both at the pre-service and in-service levels; designing learning activities tailored to participants' needs; evaluating professional development activities for continued growth; building a professional culture; and developing strategies to encourage nontraditional and minority students to enter the teaching profession.

Activities are conducted under the direction and guidance of a planning team. The planning team is broadly representative of the university, the school district and the community.

Intended Outcomes

UALR's College of Education, College of Science and Engineering Technology, and College of Arts, Humanities and Social Sciences cooperate with North Little Rock Public School faculty and administrators, parents, community leaders, and health and human services providers to design and provide programs that prepare school personnel for effective teaching and leadership in a metropolitan setting.

Lessons Learned

During the first year of implementation, participants in this program have learned that breaking the mold sometimes requires taking strong stands. Participants may have disagreements and tender feelings on issues from earlier experiences that are no longer important. There are old preconceived views that need expressing and altering. Absolute candor is extremely important in inducing change, particularly when that change involves forming partnerships with somewhat disparate groups. The first part of the mold to break must be on the campus.

Time has been a major problem in that coordinating work schedules and institutional calendars has sometimes been impossible. After identifying stakeholders, carving out time for meetings should without delay become the next task.

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Early Literacy Small-Group Instruction: A Project for Best Practices in Literacy Education

In an effort to meet the National Education Goals 2000, UALR recognizes the importance of forming active partnerships with public schools, educational agencies and community orga-

nizations. The goals of the university are to provide excellent teacher education programs and establish relationships between the university and public schools and to raise the profile of UALR programs and faculty members. The university also recommends that faculty members disseminate results of applied research to the community. In meeting these goals, the Early Literacy (EL) Project has empowered teachers and school districts to become active, participatory developers of true and authentic educational reform. The university faculty and staff have facilitated and guided this on-going process. The university and public schools collaborate on data collection and analysis of the effectiveness of the EL Project. This model has implications for intermediate and secondary literacy programs.

The EL Project is a cooperative project between the university, seven regional education cooperatives, and 48 school districts which provides instruction, demonstration classroom sites, extended staff development, and research in the field of early literacy success. The university provides two courses in Early Literacy strategies, which are taught at the UALR campus, and eight satellite sites by Reading Recovery personnel. These courses are clinical in nature and practical in application. Case studies of high-risk children, colleague visits, and video-taped segments of teacher interaction are required for the school-based component of these courses. Demonstration classrooms are available at eight locations and an informal mentoring network is established for participants. Rigorous monitoring of children's progress and achievement are required as indicators of teaching success.

Non-credit staff development opportunities are offered by the university to scaffold the continuing efforts in the implementation of the model. Full-day work sessions are offered to support practitioners implementing the literacy model in various instructional settings. Additional full-day seminars are held for administrators and course instructors who are interested in establishing the project within a compensatory framework.

Intended Outcomes

The UALR Early Literacy (EL) Project has been developed to provide education, monitored training, application and research for intervention services arresting the failure rate of early learners by providing experience with best practices of early literacy teaching in each school. The university is seeking to extend its role beyond course provider to dissemination and implementation support, so that research-based strategies are implemented in school programs.

Lessons Learned

Research studies have been completed for the first three years of this project which support the success of this model in addressing the literacy needs of high-risk children. Three thousand children in Arkansas have been served through the Early Literacy Project. Educators throughout the United States have indicated an interest in this model and have visited the UALR training center and participating school districts. One evidence of the success of this project is the number of independent projects that have resulted from this initiative, including grants written for expanded early literacy projects, parent involvement, and building-level staff development provided by the teachers trained in early literacy courses.

In retrospect, due to the positive response to the development of and research findings from the EL Project in central Arkansas, and in order to effect the expanding results across the state, UARL should provide more intensive and extensive training to the EL instructors in the

educational agencies. A training component should be provided to be a part of the on-going statewide early childhood initiative.

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University of Central Florida

Orlando, Florida

The Martin Marietta/UCF Academy for Mathematics and Science

The Martin Marietta/UCF Academy for Mathematics and Science is a collaborative effort of industry, university and public school systems begun in 1992 to improve the teaching and learning of mathematics and science. The academy involves a selected group of teachers who engage in intensive study of their personal classroom practices. A cohort group of teachers is selected for a master's degree program based on their keen interest in teaching mathematics and science, their past record of professional development activities, their willingness to mentor colleagues and UCF interns, and their potential for leadership. These teachers choose to enter the program to systematically examine their classroom practices and make a commitment to continued research, service and leadership in their professional lives. They are continually challenged to reflect on the effects of their own practices through journal writing related to university course activities, informal learning activities, and involvement with UCF interns. Classroom activities and professional activities are documented through portfolios. New knowledge and classroom successes are shared with colleagues through workshops. They begin to accept responsibility for leadership by mentoring colleagues and UCF interns. As a culminating activity, all engage in action research related to their own classroom practices. They learn to use research as a life-long tool to promote reform in mathematics and science teaching and learning.

Intended Outcomes

The Martin Marietta/UCF Academy for Mathematics and Science is dedicated to systemic reform of mathematics and science teaching and learning in K-8 schools of Central Florida. The academy design is consistent with national curriculum, instruction, assessment and teacher preparation standards. Moreover, the academy is committed to the creation of a network of school-based leadership in mathematics and science education as well as to the support of all teachers in their efforts to enhance the quality of mathematics and science education.

Lessons Learned

At the inception of the academy, the goal was to place one teacher in each elementary and middle school. These teachers would become leaders in mathematics and science reform for their respective schools. This was an attempt to have an impact on all 200 schools in the targeted three-county area of Central Florida in four years. However, the application pattern for the program forced the academy to consider selecting more than one teacher from some schools. The project staff relented and accepted more than one teacher when applications indicated outstanding credentials.

As the success of teachers was monitored in their early local reform efforts an important discovery was made. Teachers who were alone in their schools were not as successful in convincing administrators to make policy changes that promoted reform, had fewer opportunities to provide staff development activities, and were less likely to have mentored colleagues. On the other hand, when teachers had a cohort in the same building, more dramatic effects were occurring. These teachers were more likely to have an immediate and profound effect on the school mathematics and science programs .

Because of this discovery, the academy has altered its policies related to recruitment and admission to the program. It now recruits teams of at least two teachers from each school. In the elementary schools, the ideal team has a primary and an intermediate teacher, while the middle school teams are most often content-based. In the earlier target schools, colleagues who complement the existing teacher leader are being sought.

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University of Houston-Clear Lake

Houston, Texas

GATER²—Galveston Area Teacher Education Recruitment and Retention

For the unique island community of Galveston, collaboration among higher education, K-12 education and the community is crucial for the success of its students and future teachers. As the population of minority students in the Galveston public schools is more than two thirds, and the population of minority teachers is less than one third, there is a great need for minority teachers in the Galveston Independent School District. Also, in this community, where the public school system is the third largest employer, there is a need to train Galveston youth for careers in education, providing them the opportunity to be gainfully employed and contribute to the Galveston community. Collaboration was the answer.

GATER² is the Galveston Area Teacher Education Recruitment and Retention program, a collaborative effort among three institutions—Galveston Independent School District, Galveston College, and University of Houston-Clear Lake—with the goal of training Galveston students to become Galveston teachers, with special emphasis on recruiting minorities. GATER² guides students on a seamless educational track from high school through upper-level university, culminating in a college degree and teacher certification. During this time, they enjoy opportunities for networking with fellow GATER² students, mentoring by college and university faculty, and experiential training and employment in the Galveston schools, ultimately returning to the Galveston public school system as well qualified teachers, serving as local, minority role models in their schools and community.

Intended Outcomes

Intended outcomes for the GATER² program include an increase in the number of Galveston area students, especially minority students, who are pursuing and completing the teacher

preparation program at University of Houston-Clear Lake; and a subsequent increase in the number of these students, especially minorities, employed as teachers in the Galveston Independent School District.

Lessons Learned

Since its inception in the spring of 1991, GATER² has identified 150 Galveston-area students who are pursuing teacher certification with hopes of teaching in the Galveston public schools. Of this group, 64 percent are either African American or Hispanic, and the majority are attending Galveston College. Beginning this fall, the first GATER² graduate began her career as a teacher in the elementary special education classroom. Galveston I.S.D. looks forward to hiring at least four more GATER² teachers by fall of 1995.

In the last three years, a great deal has been learned about how a small amount of funding, and the collaborative support of three institutions, can mean the difference in the lives of students for whom higher education and a career in teaching might not have been a reality without the GATER² program. When students have a network of institutions working together as partners for their future in teaching, they feel supported, encouraged and motivated to succeed.

But while the collaboration itself has made a difference for many students, for other students, encouragement and support are not enough. These students need assistance with tuition, child care and transportation, all of which require funding. As services continue to be provided to students, staff will begin more efforts toward the procurement of funds, knowing that financial support will allow expansion of efforts and ensure the continued and future success of the GATER² program.

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The University of Memphis

Memphis, Tennessee

College of Education Restructuring for the Simultaneous Renewal of Teacher Education and P-12 Schools

If significant and meaningful changes are to occur in the improvement of the education of American citizens, education must be viewed as a birth to death process. The nation can no longer afford to view education as fragmented, unrelated parts, with all programs, preschool, K-12 and higher education, seeking funding and support in competition with the others. Higher education programs must join with P-12 schools. Professional Development Schools (PDS), which can be characterized by the terms collaborative, teacher-empowered and site-based, are positive efforts to joint education agencies/institutions. The operation of MSU's PDS has demonstrated the value of these elements and descriptions showing that these changes really do improve the practice teaching experience as well as provide benefits for teachers and PK-12 students in PDS.

The College of Education has been involved in major restructuring which included the implementation of simultaneous renewal of P- 1 2 schools and the teacher education programs through Professional Development Schools.

Selection of schools and supervising faculty was developed around a five-year plan as follows: Year One—commitment from schools/systems, pilot and planning; Year Two—implement six sites; Year Three—increase to 10 sites; Year Four—12-15 sites; and Year Five—15-20 sites. The university, in its third year, is meeting this time line. With 20 PDS sites, all student teachers at The University of Memphis could be placed in exemplary schools. Included in the present partnership are five different school districts, 11 schools with 400 teachers with an estimated enrollment of 6,700 children. The list is dominated by Memphis City Schools, including four elementary and one middle school as well as one university/privately funded preschool, two public county elementary schools and one private high school.

In the University of Memphis collaborative, the university is not in the business of "fixing the schools" nor is it perceived as remaining in its ivory tower while teachers struggle to make the transfer of theory into practice. The schools are valued as the learning laboratories of the university where theory and practice merge into application and daily problem solving. P-12 teachers are viewed as equal partners and professionals with expertise in training pre-service teachers. The results are exciting. More university faculty are involved in schools; P-12 teachers are feeling empowered and renewed while choosing to remain in classrooms. Cooperative research is happening; planned and sequenced staff development is happening in the schools and at the university. University and P-12 teachers are beginning to help new teachers complete a licensure program and feel empowered, professionally capable, and prepared to really make a difference.

Intended Outcomes

The intended outcomes of the reform are to promote simultaneous renewal of the University of Memphis Teacher Education Program and instructional programs in P-12 schools through a collaborative. The specific outcomes for the Professional Development Schools are to support student learning through the increased exemplary programs in P-12 schools; to include the professional staff of the school in pre-professional education of teachers; and to support inquiry and applied research in the schools.

Lessons Learned

Developing a true collaborative where neither partner is perceived as the one with the power, the expertise, or status, is difficult. Some important lessons have been learned over the two years of the PDS partnership.

Schools and universities must work together to devise creative and feasible ways to set aside time during the work day that's required for reform to flourish—time for collaboration and time to build trust and rapport. Change is slow, it takes time. Experience indicates that with persistence and patience, coupled with mutual respect between school and university personnel, the activities of the partnership will result in improvement in teaching and learning.

For schools which have not been clinical sites prior to becoming a PDS, early training in practice teacher supervision, evaluation, coaching and reflective mentoring may enable the

cooperating teachers to gain confidence in taking the lead in the supervision/evaluation process.

Action research, whether individual, collaborative or school-wide, has the potential for improving the practice and health of a school. P-12 teachers and administrators may need training and support in order to use it as a powerful tool for improving teaching and learning in their schools.

P-12 schools in a university partnership may have a common vision and goals that provide a framework for the work of the entire partnership. However, each school site is unique, with different students, teachers and communities that have different needs. These differences will be reflected in the school improvement plan that guides the work of each school.

The relationship between the university representative and the principal sets the tone for the facilitative role with classroom teachers and support staff. It is important that they clearly understand and respect one another's role in the partnership. The university representative should also keep in mind that the work of the PDS takes place on the principal's turf.

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University of Nebraska at Omaha

Omaha, Nebraska

Career Advancement and Development for Recruits and Experienced Teachers (CADRE Project)

This project is a collaborative effort between higher education and K-12 practitioners. The Metropolitan Omaha Educational Consortium (MOEC), comprised of seven metropolitan Omaha public school districts, coordinates this project. This project is a true collaborative effort involving public school superintendents, university administrators and faculty and staff from both entitles.

The CADRE Project is a year-long teaching experience for newly certified teachers who are also completing a specially designed master's degree program. The structured first-year teaching experience includes a broad variety of professional learning experiences designed to assist CADRE teachers in reaching a level of professional skill and judgment that characterizes a well-qualified teacher. This experience provides practical teaching techniques and strategies with feedback of applicaton through the extensive use of mentoring, as well as graduate work focusing on the synthesis of various learning theories. The professional competency of the CADRE teachers is raised toward a level distinctly above that of the beginning teacher holding a bachelor's degree. Successful completion of the CADRE Project gives participants priority consideration for employment in the participating school districts.

The CADRE teachers are mentored by CADRE associates who are master teachers selected by their districts. The CADRE associates are released from classroom responsibilities to be involved in clinical support roles, district designated roles, and university-related assignments.

The program includes an exchange of funds so there is no additional cost for either the districts or the university.

Intended Outcomes

The CADRE Project is designed to assist newly certified teachers with challenges unique to entry into the profession. CADRE teachers wail have an opportunity to complete a master's degree through a sequence of coursework and field components while being mentored by CADRE associates, who are master teachers.

Lessons Learned

The CADRE Project has worked toward developing the professional competency of teachers at a more rapid rate through the implementation of extensive mentoring, and graduate coursework that focuses on application. Though in the early stages of the pilot year of the program, data collection is reflecting that the CADRE teachers' "Stages of Teacher Concerns" are different than non-mentored teachers. In addition, interviews with CADRE teachers and their mentors indicate that participation in the graduate coursework and the first-year teaching experience are greatly enhanced by the support they receive from each other.

The CADRE associates, veteran teachers released from classroom teaching assignments, have found the opportunity for professional growth and reflection to be extremely valuable. Interviews and data collection indicate that they feel more "valued" and have a renewed enthusiasm for education in general.

As the CADRE Project continues to be refined, it is expected that the middle level and secondary level components will expand. Coursework will continue to be modified and improved to meet the needs of the teachers, both sequentially and in strategy and application.

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Metropolitan Omaha Educational Consortium

The Metropolitan Omaha Educational Consortium is a true collaborative effort of higher education with K-12 and community. The task forces of the consortium respond to high priority issues common to all member organizations utilizing resources and expertise resident in the university, K-12 schools, and the community.

Founded In 1988, MOEC is directed by an Executive Steering Committee comprised of the superintendents of seven public school districts and the dean of the College of Education. Task forces are created to work on high priority issues common to member organizations, such as middle level education, staff development, instructional technology, pre-service prepa-

ration of educators, health education, substance abuse prevention, early childhood education. assistance to beginning teachers, and others. The outcomes of MOEC include the following benefits for the school districts and the college: combined powers of group to communicate with the community, decision-makers, parents, and the media; greater efficiency in the use of educational resources; the opportunity for university and school personnel to work together collegially in applying theory to practice, and in conducting research in school settings relevant to problems; the chance to have master teachers and administrators from the schools teach in university classes; access to expertise throughout the community; input of school personnel Into the college's professional preparation program; potential for enhanced field and practicum experiences for the college's students; ability to share knowledge regarding effective practices; and a forum for proactive responses to educational issues.

Intended Outcomes

The Metropolitan Omaha Educational Consortium (MOEC) is a collaborative organization that seeks to unite the talents and energies of seven metropolitan Omaha area school districts and the College of Education, University of Nebraska at Omaha. The consortium serves to empower teachers and administrators from local public school districts and faculty from the College of Education to work collegially in addressing educational issues.

Lessons Learned

The College of Education has learned that it is not only possible, but most advantageous, to collaborate with partner school districts in addressing major issues facing education today. The college has learned that this partnership has resulted in significant gains in heightening the problem solving capacities of the member organizations through the sharing of resources, participating in joint research and evaluation efforts, offering opportunities for joint staff development activities, improving the professional preparation of pre-service and in-service educators, and improving the educational opportunities for area youth.

Things that would be done differently include be a more focused plan to inform the media of the positive outcomes associated with this collaborative partnership.

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University of North Carolina at Ashville

Ashville, North Carolina

Partners in Learning

In response to a national report prepared by the Carnegie Council on Adolescent Development in 1988 (*Turning Points: Preparing American Youth for the 21st Century*), the North Carolina Department of Public Instruction recommended that middle school instruction emphasize the integration of subject areas in instruction, as well as critical and creative thinking. This project has addressed these areas of emphasis by using literature-based instruction, the reading/writing workshop method, and computer-assisted instruction in both tutor training and instruction for middle school participants. Through a pairing of teacher education students

with middle school students, a partnership was created in which university students coached middle-school students in literacy skills, while middle-school students coached their tutors in becoming better future teachers. The impact of the program on the participating middle-school students has been analyzed annually using basic descriptive statistics and tests of significance for differences in pre-tutoring and post-tutoring scores on the California Achievement Tests and sub-tests of the Woodcock Johnson Tests of Achievement. The impact on the tutors was assessed through videotapes, journals and interviews with tutors, middle-school students and mentor teachers.

Intended Outcomes

This collaborative project is designed to strengthen teacher education at the university by providing selected certification students with specialized training and clinical experience prior to student teaching. Participating university students are given a year-long field experience in tutoring and are matched with mentor teachers in the middle school setting. Equally important, this project is directed toward improving basic literacy skills (reading, writing and computer fluency) in a middle-school population identified as being three to four years below grade level in reading.

Lessons Learned

Based on the quantitative and qualitative data, this collaborative project has experienced considerable success each of the four years it has been implemented. Factors that have contributed to the success include intensive tutor training, paying tutors for their tutoring, and designing a university/public school/ community agency partnership guided by a symbiotic relationship between the partners. That relationship is based on the development of clear responsibilities for each party and the establishment of a plan of continuous communication and cooperation between each partner.

This program could be strengthened by providing more than one year of intervention for the selected middle school students; two years would be preferable, given the literacy needs that have been identified. An Outward Bound experience would also enhance this project, since the majority of middle school students selected for participation have low self-esteem due to repeated academic failures. The importance of parental involvement in the school has been underscored by this program; project staff is committed to finding methods to increase the parent contact with the school. Several parents of the middle school participants have limited literacy skills. The community partner, the Literacy Council of Buncombe County, is reaching out to these parents through their services. The first year of assessment included a control group and an experimental group. After this year, there was a merger of all schools serving middle grade students into one large inner-city middle school. Due to a number of changes in the school system, the project staff was no longer given permission to identify a control group. It is, however, working with the school system to do a longitudinal study of the first group of selected middle school students in the Partners in Learning project.

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The University of North Carolina

Chapel Hill, North Carolina

Mathematics and Science Education Network

The Math and Science Education Network (MSEN) is a network of centers located at constituent institutions of the University of North Carolina system. The center directors, collaborating with faculty from mathematics and science education and arts and sciences at each of the insititutions, work closely with the school districts in their region to provide professional development opportunities in mathematics and science for K-12 teachers. Working with students in grades 6-12 in the Pre-College Program is another of the primary functions of MSEN.

In 1981 the scarce supply and inadequate qualifications of many of the secondary mathematics and science teachers prompted efforts on many UNC campuses to bolster the education and re-education of mathematics and science teachers. On July 12, 1984, after much planning by university staff and faculty from several campuses, the UNC General Administration established the network with eight teacher education centers on four-year campuses across the state, a research and development unit at North Carolina State and a liaison center at the NC School of Science and Mathematics. In the beginning, the network concentrated on offering science and mathematics content courses for middle and high school teachers. Support was provided by an annual contract from the Department of Public Instruction for the MSEN/SDPI Summer Institutes Program, which continues to the present day.

In 1985-96, the network embarked on its second major effort, the MSEN Pre-College Program, in which targeted students participate in academic enrichment activities and teachers associated with the program receive intensive in-service education. Technological advances, release of the NCTM Curriculum and Evaluation Standards, new requirements for pre-service education, and new admission standards adopted by the UNC Board of Governors were forces in the late 1980s that led the network into new areas. Concern for pedagogy as well as content and a resolve to serve elementary as well as middle and high school teachers required the network to seek new sources of support. Grants from the Department of Education and the National Science Foundation provided opportunity for important statewide initiatives working with elementary teachers. The center directors and associate/assistant directors interact with business and community leaders in their regions to leverage resources in the region to provide teachers and students in their regions the optimal conditions for the teaching and learning of mathematics and science.

Intended Outcomes

The UNC Mathematics and Science Education Network (MSEN) seeks to improve the teaching and learning of mathematics and science in North Carolina. It provides statewide leadership efforts to strengthen the quality of and increase the size of the teaching base in mathematics and science education, and to increase the pool of students who graduate from North Carolina high schools prepared to pursue careers that require mathematics and science.

Lessons Learned

As the middle of the 1990s approaches, MSEN is working with other organizations through the North Carolina Mathematics and Science Coalition to develop plans for systemic improvement of science and mathematics instructions at all levels of the state's public school

system. To ensure, through sustained and intensive high-quality professional development, that all teachers provide learning experiences in mathematics and science for their students requires the efforts of all those stakeholders. Working within a school system to provide staff development for all teachers in that system in mathematics and science on a long-term basis has prompted the network to look at ways to utilize strong teacher leaders in those systems. Based on research information from the statewide initiatives working with elementary teachers, the network is focusing on efforts to develop teams of leader teachers, one in science and one in mathematics, so that these teachers, trained in content and pedagogy, can be mentors and peer coaches for teachers in their school systems to extend the staff development provided to them by their follow teachers. Working with school systems and the organizations in their regions, the centers, through collaboration of faculty in mathematics and science education and arts and sciences at the university sites, are helping to plan staff development programs in mathematics and science tailored to the needs of that particular school system.

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The University of North Carolina at Charlotte

Charlotte, North Carolina

Summer Teacher Institute/Math Camp

The three-week Summer Teacher Institute offers two weeks of intensive training for participating in-service teachers who aim to earn three hours of graduate credit towards certificate renewal or their advanced degree. This is followed by a final week of Math Camp.

This program is a collaborative effort among College of Education faculty, graduate students and teaching fellows (pre-service education students), Continuing Education staff, local school teachers, principals and counselors, and parents.

This collaborative program grew out of three community needs—teachers who wanted a hands-on course in contemporary math methodologies using manipulatives and computers to teach problem solving to their children; teachers looking for an opportunity to genuinely apply what they were learning with children; and children and parents in the community who were seeking a low-cost enrichment opportunity in math where the children could work closely with a teacher in a setting that was both challenging and enjoyable.

During camp, one teacher is assigned to three or four children, each carefully screened via parents and regular-year teachers, in terms of age, grade, ability, disability and the like. Teachers maintain a journal on each child and provide a review for the parent of each child's performance, noting strengths and weaknesses with a suggestion for stimulation and improvement. Each day's activities includes, for each child, close work in small groups, independent computer work, and a math game session—all under the supervision of the assigned institute teacher.

Intended Outcomes

This effort is intended to provide teachers a hands-on course in contemporary math methodologies using manipulatives and computers to teach problem solving to children, and the opportunity to immediately apply what they are learning with children. Teachers participating in this Institute are preparing and sharing curriculum modules among themselves and with their students. The students in the Math Camp will participate in enrichment opportunities in math by working closely with a teacher in a setting that is both challenging and enjoyable.

Lessons Learned

A major index of both the effectiveness and the need for this type of program is the high demand for it in the second year by both participating teachers and by parents for their children. Those needs are greater than anticipated. Children, parents and faculty all find this type of experience invigorating, challenging and necessary; evaluations are extremely favorable. Time has not yet permitted a follow-up with children regarding possible long-term effects on their attitudes toward math or a parent follow-up based on post-camp evaluations. Both projects are under consideration. Teachers find the update on hands-on methodologies by exemplary faculty and the opportunity to "practice" with children invaluable experiences.

This program needs to incorporate similar programs in science methods, language arts methods, and gifted education. The program also has potential for longer term application. The summer institute and math camp faculty have contracted to do a year-long service program involving faculty, children and parents at a local magnet school for math and technology. That program is currently in its initial year.

When implementing a program of this nature, it is necessary that there is an institutional climate that rewards initiative and innovation in the service of the community and is flexible enough to see that academic credit programs need not be limited to conventional formats.

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University of Northern Iowa

Cedar Falls, Iowa

The Janesville Project

In May 1992, the Janesville School District, a rural school district in northeast Iowa, joined the College of Education at the University of Northern Iowa (UNI), a public university committed to teacher education, to sign a declaration of intent to pursue cooperative strategies aimed at enhance both educational programs. The partnership, in cooperation with a local group, Citizens for Educational Excellence, is piloting a creative alternative to consolidating or closing a rural school with potential benefits to both agencies. The resulting cooperative effort has resulted in a school system-wide transformation process in keeping with the mission of The Janesville Project: "Through collaboration and professional development, the Janesville/UNI

partnership will establish a focus to build a model school which will incorporate and foster innovation, authentic learning experiences, and technology." (signed document, May 1992). Expected outcomes are increased student achievement, a site for student teaching cohort groups, and improvement of experienced teacher practice.

Intended Outcomes

The intended outcome is to establish a professional development partnership between a major teacher education university and a small rural school district.

Lessons Learned

Even though it is early in the project, many things have been learned. The project has indicated that it is important to begin the initiative, grassroots-up, as soon as possible, before resentment builds in the teaching ranks, preK-12 or higher ed. Care and attention must be given when blending two cultures that are much more different than they appear with respect to work schedule, nature of workload, perspective on the nature and function of scholarship, autonomy, perceived efficacy, and esteem or lack thereof for members of the other culture. Both groups must be actively willing to make the project coordinator well-grounded in both cultures. Choose a project coordinator carefully and empower him/her to make decisions related to the partnership. Do everything possible to build communication structures, e.g., e-mail, phone lines, leadership teams, study or research teams that link faculty from both cultures. Teachers, administrators, or college faculty not interested in the project should elect not to be involved or transfer to another school or college service committee.

Set a goal. List sequential steps only after knowing where the partnership is headed. Focus on the goal. Ask what the product will be. And remember, systemic reform costs money; initial costs may be minimal, but long-range projects become costly.

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University of Southern Maine

Gorham, Maine

The Extended Teacher Education Program (ETEP): Creating a School-University Partnership for Professional Development

The ETEP program engages, as partners in teacher education, the University of Southern Maine and five Maine school districts, ranging from the urban Portland Public Schools to the rural Fryburg School Administrative District, and including Yarmouth, WellsKennebunk-Ogunquit, and the Gorham Public Schools. These partner schools have created an innovative teacher education program now in its fifth year. Each year the program has educated some 70 to 80 students.

The partnership ETEP program takes liberal arts graduates for an intensive year of practice leading to certification and offers a two-year follow-up program leading to a Master of Science in Education. Students in cohort groups spend the certification year in an intensive

internship at one of five school sites—schools committed to school renewal—working, teaching and taking courses primarily at the site, jointly mentored by school and university faculty and cooperating teachers. The ETEP partnership is committed to sustained effort over the long-term and to several interconnected goals, that is: to school re-structuring; to the ongoing education of teachers, to increasing knowledge of their subjects and their students; and, to the success of all students. These are features now acknowledged as foundation for the reform of American education.

Intended Outcomes

The Extended Teacher Education Program (ETEP) of the University of Southern Maine (USM) is engaged in creating a Professional Development School (PDS) model of teacher education in which school-site and university faculty join in the creation and delivery of a program of teaching and learning for those entering the profession and seeking initial certification. The ETEP program is committed to the education of all students, to the on-going development of both new and experienced teachers, and to the renewal of schools.

Lessons Learned

The Extended Teacher Education Program has brought about changes in roles and ways of doing things at both the participating schools and the university, and presents on-going tensions and challenges as the program enters its fifth year. Leadership of the program resides in the jointly held roles of school site coordinators, shared positions by both a school site teacher and a university faculty member. The site coordinators are responsible for the admission and placement of students, for the delivery of the program at the site, and for linking issues of renewal, engaging schools and the university. School site faculty engage in writing about the program, in research, and as spokespersons for the ETEP program at local and national gatherings. University faculty act as teachers for faculty development, as participants in the development of school initiatives, and as co-learners with new and experienced teachers. Change at the university, while slower to develop than at renewing schools, nonetheless has involved significant new developments, such as re-allocation of faculty work to include site-based course offerings; the re-allocation of funds to offset costs of school districts, enabling faculty to serve as site-coordinators; the redefinition of the reward system for faculty scholarship and service to include action research on teacher development in school settings; and, the revisioning of course delivery. These issues of course delivery, of deepening connections to the Arts and Sciences faculty as well as to participating schools, are challenges the University of Southern Maine. This is especially true as the university continues to feel the effects of a weak economy, and like other colleges and universities, suffers from declining enrollments. Questions abound: Can faculty sustain the intense work of the site-coordinators or will they seek new assignments? If faculty do not, who—at the university or the school—will sustain the relationships so critical to site development? Can university and school continue to invent and develop these relationships? What will be necessary in resources, energy, etc. to sustain them?

The ETEP will continue to seek answers to these and other questions.

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The University of West Florida

Pensacola, Florida

Alternative Education Training Project

Public educators are faced with increasing numbers of K-12 students who are classified as at-risk in regard to probable academic failure. The at-risk student represents a significant population of students who often become school drop-outs. Both national and state data indicate that the percentage of K-12 students classified as academically at-risk has dramatically increased during the last three decades. In the 1960s, fewer than 20 percent of all K-12 public school age children and youth were classified by the U.S. Department of Education as at-risk academically; however, three decades later that estimate had increased to over 30 percent and continues to increase. Current projections at the national level indicate that the nation's at-risk K-12 population likely will continue to increase well into the 21st century.

Despite national and state efforts to address this problem, it has become increasingly difficult for public educators to reverse the impact of negative or limited early childhood experiences on at-risk students. As both the numbers and percentages of at-risk children and youth increase, so have the numbers of classrooms and schools that are specifically designated as "alternative education" sites. In the northwest Florida region alone, there are approximately 1,000 public middle and high school level teachers who have full- or part-time teaching responsibilities in a specifically designated alternative education assignment. Yet Florida has not developed, nor does it require, an alternative education certification or endorsement. Further, few school districts require any specialized training or skills as a prerequisite to teaching in an alternative education program The unfortunate result of this practice is that many at-risk students continue to be taught in both additional and alternative education classrooms without benefit of personnel trained in alternative education.

The Alternative Educator Training Project is being developed and implemented by an interdisciplinary team of university faculty, regional K-12 and community college educators, and area social services, health, and juvenile justice specialists. Participation on the planning team is voluntary and based on a commitment to positively impact the lives of at-risk children and youth through educational intervention The UWF academic departments of Criminal Justice, Elementary Education, Health, Psychology, Special Education, Social Work, Sociology, and the Educational Research and Development Center are invited to participate. This planning team also is joined by regional K-12 and community college educators, juvenile justice specialists, health and human services specialists and representatives from the Florida Department of Education.

From the above group of participants, a coordinating team is formed to direct the development and delivery of approximately 20, one-credit- hour seminar/workshop modules designed for off-campus delivery to area alternative educators. Each module will focus on specialized topics and competencies in such areas as reducing school and classroom violence; managing disruptive behavior; guidance and counseling strategies for at-risk youth; drug and alcohol abuse counseling; counseling teen mothers; understanding the juvenile justice system; understanding the human services system; dealing with physical abuse and neglect; strategies for teaching at-risk youth; parent counseling; health, AIDS and sex education counseling;

using technology as a teaching tool for at-risk youth; and new strategies for teaching math, reading and writing to at-risk youth.

Intended Outcomes

The primary goal of the Alternative Education Training Project is to reduce the educational and social deficit of at-risk children and youth through an innovative interdisciplinary/full-service approach to intervention. This goal is based on the assumption that the at-risk student population is increasing and that education professionals must be trained in new strategies and intervention techniques to meet the needs of this population.

Lessons Learned

The College of Education now realizes that this program should have been initiated sooner. The at-risk students' needs, with respect to teacher education, have not been appropriately addressed. The impact of the increase in the number of at-risk children and youth on public education and society in general has been damaging. School violence and general disruptive behavior has increased to the degree that some schools must now hire security guards to patrol the halls, monitor restrooms, and guard parking lots to control disruptive behavior and deter crime. This growing educational crisis in public education now necessitates a radical rethinking of the traditional teacher education methodology and classroom management strategies currently being taught and practiced.

It is now obvious that communication among teachers at school sites, and teachers and university professionals would have improved if an Electronic Network had been established at the onset of the project. The Network would have provided a system that could be used to communicate new ideas, teaching strategies, and instructional dialog when potential problems arise.

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University of Wisconsin-River Falls

River Falls, Wisconsin

Restructuring Education Through Collaborative Projects

The university's approach to developing and fostering collaborations has resulted in collegial projects involving university faculty and area PK-12 teachers, university classes with PK-12 classrooms and schools, and international colleagues and their classes. Through collaborations, the notion of teacher education faculty has been broadened to include master public school teachers involved in numerous collaborative projects; through this process the faculty have become actively engaged in PK-12 schools. Working together on these projects requires extensive collegial collaboration as collaborators engage in the study of the learning and teaching process to solve problems, implement projects and reach shared goals. One recent recognition that our approach is working was selection by the National Education Association's Center for Innovation as one of 10 Exemplary Teacher Education Programs nationally.

This collaborative approach has resulted in numerous collegial projects including the following:

SCVATE—The St. Croix Valley Association of Teacher Educators is an organization of area educators sponsored by the College of Education. Membership includes faculty and students, K-12 teachers and administrators, board members and parents. Many of the collaborative activities cited were a direct outcome of SCVATE.

Telecommunications Project—Over 30 K-12 teachers from this area and their classrooms are linked using electronic telecommunications with matched teachers and students overseas. Using e-mail and going through an 800 number at the university, the United States' classrooms have jointly completed projects with their overseas colleagues.

Elementary Education Block Program—Six undergraduate methods courses are organized into two semester blocks. Professors are in the schools with the students where they teach demonstration lessons, supervise students' experiences and plan and evaluate in collaboration with K-6 colleagues.

Beginning Teacher Assistance Program—This program has involved more than 300 teachers and principals and includes teacher mentoring, in-service training for beginning teachers, mentor teachers and building administrators, a toll free assistance line and on-site services.

Visiting Teacher Program—This program coordinates summer teaching for teachers in 30 foreign countries. Overall over 1100 teachers have been placed.

Overseas Student Teaching—This program provides overseas student teaching experiences for students. Overall 720 student teachers have been placed in 10 countries.

Intended Outcomes

The university's approach to restructuring and improving teacher education and K-12 education is to stimulate, foster and build on the passion and commitment of university faculty and K-12 teachers by linking them and their schools through collaborative projects based on a shared vision. An environment that challenges all educators to reflect on exciting possibilities, that serves as a catalyst for action, and that provides the support and training to sustain these efforts is the goal. This would result in reforming the curriculum and changing the way teachers and teacher educators think about teaching and learning.

Lessons Learned

A faculty developed mission and vision statement has had a profound influence on the direction of the programs and activities. There is a significant number of university faculty and PK-12 teachers who want to work together on projects of mutual interest. If provided a forum for interaction, ideas for collaborative projects occur in abundance. Given modest encouragement and minimal support, educators will make huge investments of time and energy on collaborative projects of mutual interest. It is necessary to be creative with resources and focus them on specific goals.

In terms of doing things differently, the project should focus more energy and resources on those with a passion to do.

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The University of Wisconsin-Whitewater

Whitewater, Wisconsin

The Milwaukee Experience

The Milwaukee Experience provides students in a predominantly rural setting with educational experiences in an urban, multicultural, socioeconomically diverse setting. The Experience is a central feature of a pre-professional block of three courses required of all teacher education students implemented in fall 1991. To date, over 1,000 students have participated in the program. Students enroll in Observation and Participation, Education in a Pluralistic Society, and Child Development of Educational Psychology. The field experience takes place in Milwaukee public schools, approximately 50 miles from campus. The university provides transportation. Students spend eight consecutive Tuesdays in Milwaukee. Importantly, students do not begin going to Milwaukee until approximately five weeks into the semester, during which time instructors prepare them to make the field experience as educative as possible. Students meet in classes on Thursdays during the weeks they travel to Milwaukee, as well as on Tuesdays and Thursdays for two weeks after the eighth trip. Through The Milwaukee Experience, students fulfill a portion of teacher licensing requirements for pre-student teaching experiences and human relations. The pre-professional block, including The Milwaukee Experience is interdepartmental in spirit and in implementation, involving faculty from Curriculum and Instruction, Special Education and Educational Foundations.

Intended Outcomes

The Milwaukee Experience is intended to provide students attending a rural university with a quality, first field experience in a large, urban school district serving a widely diverse population (ethnicity, race, socioeconomic-economic status, disability). It is also intended to correct misconceptions about urban schools by providing positive classroom experiences.

Lessons Learned

The Milwaukee Experience taught that it is possible for a rural university to provide a high quality and highly educative experience for university students, the majority of whom grew up in rural or small town settings. A significant part of the reason for the program's success is the concerted effort of faculty members from three departments, before, during and after the students' visit to their assigned Milwaukee school, to prepare them for an inside look at urban schools. Not surprisingly, many students' misconceptions of urban schools give way to a more accurate and balanced perspective, to the extent that students who previously never would have considered teaching in an urban school district now consider that a real possibility. The staffs of Milwaukee schools and university faculty both value the opportunity afforded by The Milwaukee Experience to work together as partners in teacher preparation.

There is only one thing the project staff should do differently, and that has begun. It is important to vary the Milwaukee schools in which the students are placed. The program is now in

its seventh semester, and there are several schools used several times for placement. Milwaukee public schools includes 150 schools; it is advantageous over time to use as many different schools as possible for this program, recognizing that each has something different to offer students. Furthermore, the relationship between the university and the school system will be enhanced by using more than a select group of schools for this and other programs.

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West Chester University

West Chester, Pennsylvania

Education Center for Earth Observation Systems

The Educational Center for Earth Observation Systems is designed to support the coordinated redesign of the science education curriculum in public schools and teacher preparation programs through the use of satellite and space technologies in the classroom. The center is supported by a combination of institutional funds and external grants from state, federal and private sources. The center conducts information dissemination activities, provides seminars for in-service educators, develops and demonstrates innovative teacher preparation curricula, and develops and demonstrates effective science education curricula for the public schools. Information dissemination activities include a quarterly newsletter for public school and university educators; an Internet discussion list involving more than 300 educators from around the world; a curriculum resource guide on satellite and space technologies for public school educators; and an annual international conference involving presentations by public school educators, teacher educators, and leading scientists. Demonstration projects include a regional computer network of public school educators and students for sharing curriculum ideas, teaching strategies, and student projects; a public school/university partnership to support public school curriculum reform; a summer school for secondary school students; a seminar for public school educators; and a business/university partnership to support curriculum reform in teacher education.

Intended Outcomes

The primary objective of the Educational Center for Earth Observation Systems is to support the coordinated redesign of the science education curriculum in teacher preparation programs and the public schools, kindergarten through grade 12, focusing on the use of satellite and space technologies as a vehicle for science education. The center implements curriculum demonstration projects involving the collaboration of public school and university educators; develops curriculum and resource materials for science education; and disseminates information on educational applications of satellite and space technologies.

Lessons Learned

Efforts aimed at the redesign of public school curriculum and teacher preparation curriculum require a long-term commitment that must be fostered, facilitated and renewed over time.

The initial projects and activities beginning in 1987, which were the impetus for the development of the Educational Center for Earth Observation Systems in 1991, were the result of the interaction and commitment of one science educator from the public schools and one teacher educator from the university. The development of additional partnerships, bringing together university and public school faculty, corporate sponsors, professional associations, and governmental agencies, working collaboratively on discreet projects, have sustained the initiative over time. Each partnership provides opportunities to broaden involvement and impact, renew interests, reestablish commitment, and advance the primary goal of redesigning public school and teacher preparation curricula. At the same time, each of these partnerships requires a great deal of support, encouragement, and facilitation. Given that curriculum redesign, particularly one that attempts to coordinate the redesign of public school and teacher preparation curricula, requires an extended period of time; given further, a recognition of the interdependence of discreet projects; and given finally, the overarching goal of reform, it appears that careful, thoughtful, and patient communication is an important factor in sustaining individual and institutional commitment to and involvement in the work.

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Southeastern Teacher Leadership Center

As a collaborative effort between the School District of Philadelphia and the School of Education, the Southeastern Teacher Leadership Center works exclusively with school building-based teams from throughout the region to support curriculum redesign and school improvement planning. With a focus on shared decision making and school-based management, the center provides multiple day seminars with pre-scheduled follow up sessions, as well as on-site facilitation as needed. The seminars are designed and conducted in collaboration with participating schools; members of the university faculty serve as instructional team facilitators, with one faculty member working exclusively with one instructional team. Each seminar provides opportunities to support individual leadership development as well as the development of effective instructional teams. In the basic seminar, instructional teams develop a school improvement plan which addresses the unique needs of their specific school. Additional seminars have been designed to assist instructional teams to address district-level curriculum redesign initiatives as well as Pennsylvania Department of Education curriculum reform initiatives. The topics have included outcomes-based education and curriculum integration across subject areas and grade levels. The activities of the center are monitored and reviewed by a governing board consisting of classroom teachers and public school administrators.

Intended Outcomes

The Southeastern Teacher Leadership Center designs and develops experiences which promote the empowerment of teachers as educational leaders, facilitate the implementation of site-based management, shared decision making, and recent Pennsylvania Department of Education curriculum reform. As an ultimate goal, the center seeks to improve learning environments, increase learning opportunities for students and teachers, and enhance student achievement. The center focuses these experiences on the development of school-based instructional teams, including classroom teachers and school building administrators.

Lessons Learned

The basic format for the seminars provided by the center requires a significant commitment of time and personnel resources on the part of participating schools. According to participants, this approach assures individual participants that their efforts will be taken seriously. Positive outcomes are also attributed to the pre-scheduled follow-up sessions and the focused attention provided by a single university faculty member who serves as facilitator working with a specific instructional team. In this context, facilitators and instructional teams are engaged in a process with the clear expectation that plans will be developed, implementation activities assessed, and results will be disseminated to other instructional teams. Establishing this expectation early in the process effectively communicates a commitment to change and program improvement throughout the school district, from the district office to the school buildings and to the individual educators. This commitment to change and improvement also provides a sound basis for productive collaboration with university faculty members as facilitators for instructional teams. The full effectiveness of this approach, however, requires a level of stability within participating schools. Unfortunately, many of the participating schools have suffered from tremendous turnover in the faculty and administration. As a result, instructional teams from a number of schools have returned to participate in seminars as they rebuild their instructional leadership teams.

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Western Carolina University

Cullowhee, North Carolina

Strengthening Teacher Education Through a Partnership of Equals (STEPE)

STEPE is a successful collaborative that includes seven public school systems, Western Carolina University, two community colleges, and a regional branch of the State Department of Public Instruction. Since Western Carolina University initiated STEPE in 1990, the seven public school systems have consistently scored in the top quartile of all North Carolina schools on state tests. STEPE leaders have obtained state grants to improve teacher effectiveness in each year of its existence, and each STEPE partner shares staff development projects with the other partners.

The organization of STEPE constitutes the basic structure of the reform. Seven school districts comprise the P-12 sector of STEPE: the counties of Cherokee, Clay, Graham, Jackson, Macon, Swain, and the Cherokee Indian Reservation. The community colleges are Southwestern and Tri-County Community Colleges. Each STEPE partner has an advisory board of community leaders. The STEPE partners meet quarterly to discuss staff development and how each can share with the other partners. Western Carolina provides leadership for the consortium. The focus of the collaborative effort has been the improvement of student teaching and teaching in each P- 12 district.

The success of STEPE has made the reform possible. STEPE received a grant in 1993 to develop and implement an induction grant for student teachers and beginning teachers in the STEPE consortium. Responding to a needs assessment, seven topics crucial to new teachers

and student teachers were presented by a team of experienced teachers and administrators. In 1994, the STEPE partners received a large grant from the North Carolina Department of Public Instruction to develop A *Modular Training Program for Mentors of Beginning Teachers in North Carolina Schools*' for all teachers, teacher assistants, and substitute teachers in North Carolina. All STEPE partners will work together to develop the mentoring program and then to pilot the program in the STEPE schools.

Intended Outcomes

The intended outcome of STEPE is to improve teacher effectiveness by sharing the resources available for staff development in seven school districts and three institutions of higher learning located in rural western North Carolina.

Lessons Learned

Collaborative efforts work when all partners share equally in the design and administration of the program. Administrators and teachers must both be represented on collaborative decision-making governing boards.

The project proves that improving teacher effectiveness can improve student achievement. Universities with the responsibility to train teachers have a responsibility for staff development in the public schools.

Rural schools with limited personnel resources benefit when programs are shared and partners concentrate on securing additional funds outside the organization. Collaboration need not cost the participant dollars—only time and effort. Such collaboration creates a feeling of congeniality and accomplishment that motivates each individual partner to achieve.

Student teachers and beginning teachers share many of the same concerns and generate similar needs. Cooperation between LEAs and IHEs improves teacher performance in the field.

A revised project would stretch the boundaries of the consortium to include one or two more counties with similar populations and needs.

STEPE leaders should seek corporate funding more earnestly to bring business leaders into the consortium.

STEPE leaders could share the organization's success more widely. The organization should share its successes at least once a year by scheduling a celebration. The activities of STEPE should be broadcast more frequently to faculty and staff in each partner school, each community college, and the university.

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Western Kentucky University

Bowling Green, Kentucky

Integration of Technology into Teacher Education Programs

During the spring of 1992, a partnership between Western Kentucky University, Jostens' Learning Corporation, Tandy Computer Corporation, Apple Computer Corporation, and three local school districts (Bowling Green, Warren County and Franklin/Simpson County) was formed.

While the partnership is designed, in general, to develop a national model for the integration of technology into teacher education programs and to correlate instructional software with Kentucky's learner outcomes, it specifically allows professors in Western's teacher education program to use, demonstrate and teach about the use of technology in instruction. Students are offered theory, practice and hands-on instruction in the use of instructional technology, the integration of technology into curriculum, and how to select appropriate technology. Following instruction on the university campus, students receive practical experience in elementary, middle or secondary classrooms which have the same or similar technologies. These living laboratories allow students in the teacher education program to experience and work with instructional technology they have learned about on the university campus and to observe the impact of technology on the students using them.

Intended outcomes

The partnership was formed, in general, to develop a national model for the integration of technology into teacher education programs and to correlate instructional software with Kentucky's learner goals and academic expectations. It also allows professors in Western's teacher education program to use, demonstrate, and teach about the use of technology in instruction and to provide students exposure to the use of instructional technology in "real life" settings.

Lessons Learned

It is unlikely that a partnership will be developed, or survive once developed, if each of the partners do not benefit from the relationship. The partnership provides for the same or similar technology to be available at the university and all of the partnership public schools. The partnership also provides for each of the partners to provide assistance to each of the others so that all may benefit. For example, each of the school system partners has received instructional technology which helps with their instructional mission, and university students assist classroom teachers with the use of technology. The university receives consultation and technology from the corporate partners and internship/student teacher sites which are technologically rich. The corporate partners receive feedback about the strengths and weaknesses of their products as they function in the university and public school settings, and assistance with correlating their products with Kentucky's learner outcomes. As universities increase the number of partnerships with the business community, the nature of the partnerships and the relationships between the partners must continue to be refined.

The teacher education program at Western Kentucky University is changing. Finding the best way to accommodate change is a constant challenge. University professors will be asked to change the way they teach their courses and the university will be faced with continual change because the technology is changing at such a rapid pace.

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Western Michigan University

Kalamazoo, Michigan

University/Public School Collaborative Intern Teaching Program

Prior to three years ago, the teacher preparation program at Western Michigan University operated in general isolation from public schools. Today, as a result of collaborative planning and program implementation, public school and university faculty work together to guide the practice of cohort intern-teacher groups, to study their own practices, and to plan ways to continue the work of preparing educators and changing practice in the schools and at the university. Efforts are underway to incorporate community members as additional partners in the collaborative reform effort.

A cohort of students participate in a semester-long internship in a partnership cluster school prior to completing initial certification. In each cluster school, the experienced teachers, called mentor teachers, meet weekly with a university cluster coordinator to study mentoring and the process of guiding the practice of intern teachers. The meetings occur during the school day while interns oversee classrooms. A lead mentor, called a mentor coach, is selected and paid an honorarium at each cluster site. The mentor coach serves as a teacher representative along with the university faculty cluster coordinator on the School/University Partnership Team (SUPT). The SUPT meets every three weeks to study topics related to mentoring and guiding the practice of intern teachers; to plan additional aspects of the program such as research and evaluation; to develop portfolios for interns; to form observation strategies for working with interns and mentors; and to involve community in the partnership cluster schools. All program decisions are made with the combined input of the public school and university faculty. The mentor coaches are given university affiliated faculty status with privileges such as university parking, bookstore discounts, and computer and library facility usage. All mentors, interns and faculty are electronically connected for e-mail and network communication.

Intended Outcomes

The intended outcomes of the Collaborative Intern Teaching Program are to provide practical contexts for teacher preparation students to study and learn to teach; to facilitate the development of experienced teachers as mentor teachers for teacher education interns; and to facilitate the professional development of university faculty to work in schools with experienced teachers and teacher education students. The ultimate goal is to change teaching in public schools and at the university to reflect better what is known about teaching and learning.

Lessons Learned

The university's teacher preparation program is one of the largest nationwide, graduating approximately 850 students each year. Currently, 48 partnership cluster schools have been created across nine school districts. This reform has already indicated that such large-scale collaboration is possible, albeit complex and labor intensive. An early lesson was that col-

laboration is more difficult in secondary than in elementary schools. The solution to this has been to have pre-intern students take university courses co-taught by public school and university faculty on the secondary school campus for a year prior to the internship semester. Consequently, teacher preparation students spend three semesters on a secondary school campus and become, together with the mentors, a critical mass of teachers committed to the school/university reform agenda.

Of utmost importance has been the realization that success in collaboration depends significantly on the investment of time to discuss program expectations and to secure program support and commitment from school and university personnel, as well as parents of students in the schools.

The project staff would not proceed differently in establishing partnerships, but would encourage others embarking upon collaborative efforts to recognize at the outset that mutual gain is imperative for collaborative partnerships to succeed. In this program, interns benefit from a supportive cohort with whom to study teaching and well-prepared mentors to guide them. In turn, mentor teachers, university faculty, school and university benefit by combining their theoretical and practical expertise in preparing teachers and in teaching children.

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Wright State University

Dayton, Ohio

Partners Transforming Education: School-University-Community

Schools, universities and communities are inextricably interdependent in reaching mutual goals of a healthy and enriched community. Historically, the three have not worked effectively to meet the needs of children and youth.

Societal demands on education have justified a re-thinking of education's responsibilities. Working together toward renewal, schools, universities and communities can build their capacity to serve the needs of school-age learners and educators more effectively.

The College of Education and Human Services (CCHS) has been working in collaboration with diverse institutions over the past several years to better understand and improve the human condition.

Partners Transforming Education: School-University-Community is the process model being used by the college to plan and articulate the simultaneous redesign of programs for the education of educators and the renewal of the preK-school sector within the metropolitan region.

More than 430 community members were organized into task groups which worked through a series of transformational questions leading to an extensive list of recommendations. These

recommendations have been used to establish new organizational settings in which the college and schools are partners.

During pilot site development, college faculty and partner practitioners are making final decisions about redesigned teacher education programs and curricula that are moving the college into a professional school model. This model is designed around an extended period of preparation in school- based settings.

Collaboration with the colleges of arts and sciences intensifies and expands. Critical decisions reflecting systemic change are being made that affect these units in addition to education, warranting their consistent participation, along with school practitioners, in the Partners initiative.

Intended Outcomes

Partners Transforming Education: School-University-Community is a transformational process model to plan and articulate the simultaneous redesign of the education of educators and the renewal of the preK- 12 sector within the metropolitan region . School partner sites have been established which function much like teaching hospitals, where students in training receive extensive real-setting experiences as a result of a collaboratively redesigned teacher education program delivered by teams of school practitioners and university professors .

Lessons Learned

Partners Transforming Education discovered that its accomplishments portend significant changes in faculty roles, rewards and relationships within the higher education and preK-12 cultures. Lessons learned include the facts that university faculty must connect directly to the day-to-day functioning of partner school sites; joint appointments between arts and sciences and education colleges are imperative and create new powerful relationships; college and university promotion and tenure criteria must be changed to reflect education as a professional school rather than an academic unit; faculty performance plans must link specific types of accomplishments and workload to rewards; utilizing school practitioners as equal members of teams engaged in the education of educators requires an attitude adjustment on the part of many higher education faculty, as well as the practitioners themselves; adjustments in school practitioners' work loads must be made to accommodate their increased involvement in the education of educators; creating extensive new faculty development opportunities helps ensure success; designing and delivering newly conceptualized professional degree programs is essential; and, clear philosophical and practical understandings about the meaning of simultaneous renewal are imperative.

Cultivating trust, respect for partner personnel (even the non-participants and obstructionists), willingness to make haste slowly while sustaining a sense of urgency, accepting setbacks and failures as potential learning experiences, valuing divergence of thinking, accepting responsibility by demonstrating a commitment to work, compassion for the less bold and adventurous, humility, and caring for others seem to be especially important particulars in developing a pathway of insight in education transformation.

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Continuing Professional Development

Armstrong State College

Savannah, Georgia

Evolution of a PDS Partnership

The PDS Partnership, a partnership between Armstrong State College and White Bluff Elementary School, seeks to define, develop and implement a supportive partnership as a field-based site for pre-service teachers; to maintain innovative field-based experiences reflecting the social and racial balance of the school community; to share faculty at two sites in developing curriculum and teaching courses; to identify and develop research-based supervision and instructional strategies to serve all students; to foster a research milieu to assist pre-service and in-service teachers in inquiry and reflective practice; to keep teacher preparation at Armstrong State College dynamic and proactive; and to provide professional development opportunities through interactive networking of information and teaching via distance learning technology.

During the first two years the role of the college liaison emerged into that of a site-base supervisor. However, the liaison's time was spent differently than the time of a traditional model: the college liaison interacted less with the pre-service teachers as an observer and more as a supportive resource for the in-service classroom teachers.

Faculty development has been a two-way street. By meeting with the classroom teachers prior to each field-based course and by following up with a questionnaires, the college faculty has made many changes in course content and activities, such as the development of portfolio assessment. The school faculty has participated in several professional development workshops and has responded to annual open-ended questionnaires regarding their instruction and management. As a result of a qualitative analysis of their reflection regarding their own instructional practices, the teachers have been both consumers and producers of research. The implications have effected school based teaching, college expectations, and evaluation of pre-service teachers.

Intended Outcomes

The original goal of the Partnership was to establish a "real" setting in which college students could translate theory into practice, aligning college courses with school instruction. However, due to time, travel and communication constraints the partnership evolved from a curricular to a technology professional development partnership.

Lessons Learned

The efforts of the college liaison, faculty development efforts, and research practices took their toll on both campuses. But with funding from two grants, White Bluff Elementary School and Armstrong State College are now linked by distance learning technology, thrusting both faculties into a mutual professional development adventure.

Lessons relating to professional development were learned by both faculties. The program demonstrated that a developing partnership must take place over time to allow for growth and reflection. This partnership must be based on input from both school-based and campus-based educators. A specific model can't be imposed, but must reflect the real needs of the pre-service and in-service teachers. The partnership must simultaneously renew both

the school and college faculties. The use of distance learning technology is not only efficient in terms of time, travel, and communication, but is also a means to open the campus' classroom windows to the real world beyond.

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Cleveland State University

Cleveland, Ohio

Greater Cleveland Educational Development Center

Since its inception in 1983, the Greater Cleveland Educational Development Center (GCEDC) has been very active not only in bringing teachers and school administrators to Cleveland State University, but also in bringing the resources of the university and the expertise of the faculty to the community. The GCEDC serves as an important link between the College of Education and the K-12 educational community. Based on a collaborative decision-making model for policy and programming decisions, the GCEDC functions under the administrative umbrella of the College of Education. In 1992, the Ohio Department of Education established and funded eight centers to develop a regional system of professional development across Ohio. The Greater Cleveland Educational Development Center was awarded the grant to develop the Regional Professional Development Center in the Northeast Region. The centers are designed to provide on-going support to schools and districts as they engage in school improvement efforts. The members of the Greater Cleveland Educational Development Center are brought together to exchange ideas, discuss common concerns, and consolidate resources, striving to serve the needs of all members in the area of professional development.

Intended Outcomes

The Greater Cleveland Educational Development Center is a consortium of school buildings, school districts, independent schools and other educational agencies in cooperation with Cleveland State University dedicated to providing leadership in state-of-the-art staff development programming and other services in collaboration with its members.

Lessons Learned

The real challenge to the Greater Cleveland Educational Development Center is to balance the grassroots focus of its membership consortium with implementation of the Regional Professional Development Center grant, which is clearly designed to advance the reform agenda of the State Board of Education (i.e., implementation of model curricula, support for schools adopting site based mandates, and school restructuring). Dealing with both the "top down" mandates of the state and the "bottom up" concerns identified by educators, the GCEDC mirrors the efforts of school districts and other educational agencies. Many in education are convinced that if school reform is to take place it will happen at the building level. At the same time, movements toward national standards increase. The GCEDC must continue to assist educators to effectively grapple with these competing forces.

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Edinboro University of Pennsylvania
Edinboro, Pennsylvania

Center for Excellence in Teaching

The Center for Excellence in Teaching is operated by two faculty who serve as part-time directors of the center. The directors and an advisory committee oversee the activities of the four institutes: the Institute for Ethics and Values Education; the Literacy Institute; the Early Childhood Education Institute; and the Institute for Curriculum, Instruction and Collaboration.

Each of the four institutes focuses on separate issues and has a separate steering committee comprised of faculty, staff and students across the campus, as well as representatives from the field. The center and its institutes sponsor numerous professional development activities, such as workshops and conferences, several speaker series, and special events appropriate to the goals of the center.

Intended Outcomes
The Center for Excellence in Teaching was established after a study by a special Task Force on Educational Reform. Its purpose is to improve the quality of teacher education on the campus and in area schools.

Lessons Learned
The establishment of the center and its four institutes has been instrumental in providing a vehicle by which faculty efforts can be effectively channeled to more directly meet the needs of constituencies on and off campus. It provides a forum by which issues germane to education can be discussed. The various institutes also have served as key agents to secure grants to help support their activities.

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Governors State University
University Park, Illinois

Administrator Induction

New administrators, just like new teachers, are not provided opportunities to interact with fellow professionals during the first year in a new position. Overcoming isolation among new administrators is just as important as overcoming isolation among classroom teachers. University professors in educational administration collaborate with an advisory council to develop and organize professional development sessions for mentors and proteges. New administrators are provided insight into problems that may be encountered during the school year. Experienced administrators have opportunities to share past problems and solutions as well as issues. A series of professional development activities assists both the mentor and protégé with opportunities for personal and professional growth. Additionally, individuals have time to network with each other and gain valuable information during informal as well as formal settings. The importance of listing objectives, goals and performance criteria for

evaluation are emphasized to both groups. Personal as well as professional growth is emphasized throughout the project.

Intended Outcomes

The Beginning Administrator Project is designed to provide new administrators with mentors to overcome the problems generally encountered during the first year in the position. New administrators benefit from prior experiences and gain confidence in seeking assistance during the school year. Through a series of professional development sessions and other contacts, new administrators are assisted with overcoming problems and issues.

Lessons Learned

The project reveals several things. It has shown that administrators develop their own networks to assist with resolution of problems and issues. New and experienced administrators can learn from each other. New as well as experienced administrators constantly need to learn new skills and evaluate old skills for dealing with parents. Professional development activities for administrators must be relevant and continuous for personal and professional growth. Communications should be open to the public at all times.

The project would have benefitted if funding for such a program had been sought from outside agencies. Future projects will involve new administrators with mentors as soon as possible. Finally, the project should provide opportunities for both administrative groups to simply discuss problems and issues in an informal setting.

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Teacher Induction

Teacher induction is a very necessary practice for this region. Early retirement for classroom teachers has caused a disruption for many school districts, which are struggling to maintain the professional development of teachers. The university, in collaboration with four school districts, initiated a teacher education program last year. This year, eight different districts with close to 65 new teachers requested participation in the program.

Experienced teachers, in the role of mentors, collaborate with new teachers in the school district to assist with enculturation into the profession. Both mentors and new teachers experience a number of professional development activities designed to assist both groups with learning about teaching. Mentors provide assistance and informal evaluations to beginning teachers during the interim between professional development activities. Professional development for both the experienced mentors and beginning teachers takes place throughout the school year.

Intended Outcomes

The program is designed to enculturate beginning teachers into schools through professional development activities involving mentors and new teachers. Collaboratively with the university school districts select, plan and implement professional development activities for mentors and proteges.

Lessons Learned

Reports from last year indicate that both groups benefit from collaborations on planning teaching sequences, materials location, and growth as professionals. Teachers appreciate programs that break down the barriers of isolation. Both mentors and beginning teachers no longer feel isolated in their classrooms. Additionally, the opportunity to network among fellow teachers during professional development sessions has proven invaluable. Beginning teachers and mentors are provided time to interact and thus network with professionals from other districts; they indicate that this is a very worthwhile opportunity. The project also has learned that good teachers, rather than quitting after the first year, are more likely to continue in the profession. Finally, the program has learned that teachers have better knowledge of classroom evaluations after both the mentor and protégé visit each other's classrooms.

Future projects should involve a wider base of support for professional development activities rather than just depend on participating schools and the university. It is also important to match a mentor with a protégé as soon as possible; summer meetings introducing the program are sufficient, but the sooner both groups get together the faster the induction process begins. University and external funds support the program. In the future, more funding will be solicited through grant proposals for activities such as a newsletter, appreciation ceremonies, recognition and materials.

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Northeastern Illinois University

Chicago, Illinois

The ALIS (Advancing Literacy in Schools) Project

The ALIS PROJECT is a vehicle for schools to form site-based staff development teams. Teacher leaders from 18 schools attend bi-weekly meetings with faculty from the department of reading. The purpose of these meetings is to foster an understanding of the nature of teacher collaboration and peer coaching necessary to implement staff development programs. Teacher leaders work concurrently with small groups of volunteer teachers in their respective schools to implement literacy initiatives and identify specific needs for their schools; thus, the literacy focus of the project is tailored to reflect the unique needs of each school.

Faculty visit the schools periodically to attend regularly scheduled team meetings. Rather than provide in-service sessions, faculty listen, learn and act as resources, providing guidance when it is asked for.

The ALIS PROJECT stresses partnerships among teachers and children. Teacher leaders and teachers on each team visit each other's classrooms to provide support and assistance as they implement new strategies. Some of the bi-weekly meetings are held at schools rather than at the university, providing teacher leaders with the opportunity to see classrooms in schools other than their own. Many of the ALIS teams are implementing initiatives that involve cross-age pairing of children for reading and writing activities.

Once teams of teachers begin working together on literacy initiatives, they continue working together for at least one school year. At the end of the year, one of the team members becomes a teacher leader and forms a second team, so that in year two of the project, two teams of teachers are in place. This model continues until every teacher in the building is involved at some level over the course of three years.

Intended Outcomes

The ALIS PROJECT is a partnership between Northeastern Illinois University and Chicago Public Schools. It was initiated in 1993 in response to a request from the schools to help provide literacy instruction in grades K-8. It is expected that participation in the ALIS PROJECT will result in teachers working together on self-selected curriculum reform projects, thereby becoming resources for each other and others in their schools.

Lessons Learned

Teachers are the best people to plan and implement ongoing staff development programs. Volunteer participation is important. Given the opportunity to meet on a regular basis to discuss issues, make decisions, and plan activities based on these decisions, teachers learn from each other and use this knowledge to make changes in their own classrooms.

Teachers who are given the opportunity to be decision-makers tend to grow professionally in new ways. Many of the ALIS teacher leaders and teachers have initiated grant writing activities to support their curriculum reforms. Some of them are beginning to write for professional newsletters and journals. Others are planning to present their work at professional conferences.

Teachers report a level of collegiality that is new for many of them. It is not unusual for teachers to stay in their own rooms and to be observed only for purposes of evaluation. In the ALIS PROJECT, teachers leave their classrooms to learn by observing good instruction and to teach in new ways with their colleagues.

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Sam Houston State University

Huntsville, Texas

Sam Houston State University Cohort Master's Program

In addition to competing with various methods of obtaining professional growth, another challenge faced by higher education is meeting the needs of the school personnel served. The traditional "talking heads" approach to a graduate program is not attractive, nor particularly beneficial, to the classroom practitioner. With the positive reputation SHSU has earned over the years for meeting the needs of its students, it recognized it was time to evaluate what was being done and the way it was being done, if the university were to maintain its focal point of achieving program excellence.

Working in conjunction with representatives from the Conroe ISD, the university established the first Conroe/ SHSU Cohort program in 1994. From the establishment of the Cohort Advisory Board, to the actual content delivery, all of the partners have had the opportunity to provide input.

The result of the Advisory Board's efforts has been the creation of a 36- hour master's program in elementary or secondary teaching fields, with 24 of those hours being delivered in the field. The general expectations include improved classroom instruction, the development of mentor teachers and teacher leaders who are advocates for the profession, and the establishment of inquiry groups and projects throughout the school district.

Intended Outcomes

The programs seeks to design, collaboratively, a graduate program to meet the professional growth needs of a large school district and, at the same time, to expand the concept of teacher as researcher as a positive force in the improvement of classroom instruction.

Lessons Learned

Although the courses may take a slightly different focus or be specifically tailored for the group, there has been no need to totally design new courses. The courses are taught by university faculty and qualified district personnel with part-time faculty status. Course formats are designed to promote active engagement in learning and to prepare reflective professionals. The cohort should become a learning community in which graduate students assume responsibility for themselves and one another, work collaboratively and independently, and establish positive, productive relations that support well-being and learning.

Even though this partnership arrangement is working successfully and is extremely beneficial for both partners, there are several suggestions to be addressed. First, the nonnegotiables must clearly be established. For instance, for teachers to become members of the cohort as planned by the Advisory Board, they must meet all graduate school admissions standards. The standards regarding contact hours and semester credit hours need to be stated clearly. Restrictions on where a class can be taught, or restrictions on who can and cannot teach at particular locations should be discussed early as well. A final consideration is to explain fully the expectations of graduate level course work.

Regardless of one's position on educational reform, meaningful partnerships are crucial for the success of public school teachers, university faculty, and ultimately, the children served. Teachers need to be empowered to become classroom researchers with the ability to affect change, measure growth, and challenge their students to become lifelong learners. Higher education can provide a vital link—but the burden of proof to be willing partners rests squarely on its shoulders.

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San Francisco State University

San Francisco, California

S. F. Math Leadership Project

The summer 1994 Institute of the San Francisco Math Leadership Project marked the beginning of the 11th year of this collaborative project between San Francisco State University and the San Francisco Unified School District. Pairs of teachers are selected to participate in this program, whose major goal is to provide urban classroom teachers with a program that will improve their own mathematical/problem-solving skills, build confidence in their math ability, and increase their effectiveness as classroom teachers of mathematics. The year-long activities include an intensive three-week summer institute, monthly meetings, ongoing classroom support plus reunion activities. Teachers present two workshops at their school sites and receive a stipend and manipulative materials for their classrooms.

Over the years, more than 300 teachers have participated in this project, representing more than 75 schools. There are a variety of leadership roles available to project participants. Some teachers present workshops through district programs; many have been speakers at local and statewide conferences. There exists now an active local network of mathematics educators at the elementary and middle school levels as a result of the work of this project.

Intended Outcomes

The project is designed to provide teams of urban classroom teachers with an intensive program that will improve their own mathematical/ problem-solving skills, build their confidence in doing and teaching mathematics, expand their knowledge of mathematics to areas other than arithmetic, and increase their effectiveness as classroom teachers.

The project also seeks to enlarge the existing nucleus of mathematics leaders in the local districts, the Bay Area and the State, by including these participants as active contributors to their own school math programs, to their district in-service programs and curriculum committees and to local and statewide math conferences and curriculum committees.

Lessons Learned

A great deal has been learned from this experience of directing a long term project, including the fact that making significant change takes time. Leadership development has been a central focus of this project. What does teacher leadership mean? What are leadership roles for classroom teachers? How can burnout of these new leaders be prevented? How can classroom teachers play a significant role in the math reform movement while they remain classroom teachers?

Leadership in mathematics education can take a variety of forms, many of which are unknown at the start of the project. It is difficult to predict which teachers will excel at these new roles. In addition, it was discovered that almost all the teachers can provide leadership at some level after participating in a project such as this.

The project has revealed that elementary teachers have a limited knowledge of the math content area. This need has been addressed by adding a Level II component in recent years, with a focus on Geometry, Measurement, and Probability. During the 1994 summer institute, participants taught children in summer schools for one week of the project. They had a chance to try out the new strategies with children immediately, and then were more confident in using the material with their regular classes in the fall. Over the years, many changes in the content and delivery of the instruction during the summer institute and during-the-year activities have occurred, although the basic structure has remained the same. A substantial component on the topic of equity in mathematics education was included, as a result of the project team's participation in the California Math Project's Statewide Equity in Mathematics Education Project.

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Southeastern Louisiana University

Hammond, Louisiana

Louisiana Principal Internship

The Louisiana Principal Internship is a two-year professional development program designed to maximize the leadership and management potential of first and second year principals throughout the state. It is a cooperative effort among the Louisiana Department of Education and the Colleges of Education and Business at Southeastern Louisiana University, with support from the Council for a Better Louisiana (CABL). The undergirding thrust of the internship is the belief that the public school principalship has undergone changes in recent years and that the skills and knowledge base required for effective administration have changed and are continuing to change. The Internship Program is a capacity-building program that seeks to improve schools by offering principals the knowledge and skills that promote democratic leadership and encourage a culture of continuous learning within the school. A total of 60 hours of training, 30 hours per year, are required for completion of the program. Training is provided in two formats: small group training for 10-15 principals within a geographic area, and large group training for all principals throughout the state. Creating learning/sharing networks among the principals provides a model for growth and support.

Intended Outcomes

A primary outcome of the Louisiana Principal Internship program is to incorporate shared decision-making in the administration and management of the schools. Specifically, principals will demonstrate interpersonal leadership skills, such as developing a vision, promoting teamwork, and managing conflict, as well as using data in developing an action plan that focuses on school improvement.

Lessons Learned

The Louisiana Principal Internship program is currently in its second year. After a year of experience, several valuable insights have been gained. Principals have indicated that they found the combination of large-group sessions led by national experts, and small-group ses-

sions led by experienced administrators (program facilitators), to be very valuable. This format provided a common knowledge-base for leadership skills, while allowing flexibility for discussion of individual concerns at the local level. The other two program components that were most praised were the on-site visitations by the program facilitators and the structured procedures for building networks among the principals.

The project illustrates the importance of building in ways to assess growth in knowledge and application of skills learned other than self-reporting by the participants or through portfolio collections. Business partners want assurance that skills learned are being applied and are making a difference. Looking at a variety of assessment tools is important and should be incorporated from the beginning.

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Texas A & M University-Corpus Christi

Corpus Christi, Texas

Retention of First Year Teachers

Nationally 30 percent of beginning teachers leave the teaching profession during the first two years and 50 percent leave during the first seven years. In addition, Texas needs 12,000+ new teachers annually. Therefore, the College of Education at Texas A & M University-Corpus Christi (TAMU-CC) initiated a program focusing on the retention of first-year teachers. The program consists of TAMU-CC working collaboratively with the school districts to mentor the induction-year teacher. Since fall 1991, 146 teachers from 20 local school districts have enrolled in the initial six-hour program. Fifty-four of these have completed the second semester. Sixteen alumni of the program have completed their Masters of Science degree at TAMU-CC. Many others are enrolled in additional course work.

The Induction Year Program offers first-year teachers, Pre K-12, three courses, for up to nine credit hours, which address problems identified by entry year teachers statewide. Two courses are taken simultaneously during the first semester. During weekly class meetings, beginning teachers discuss their concerns with peers during share and support sessions. Following these sessions, instruction is given dealing with the application of learning principles, communication skills, and teaching strategies. Participating beginning teachers are observed a minimum of three times by a trained university supervisor. Immediately following each observation, the supervisor meets with the inductee to discuss positive teaching behaviors exhibited. Together they formulate a plan for improving the teacher's skills. Course requirements, including audio and video self-critiques, allow the beginning teacher to reflect on his/her progress made during the semester. The teachers are evaluated using authentic assessment. Teachers may enroll in a third course in which additional concerns are addressed.

Intended Outcomes

The intended outcome is to increase retention of promising first-year teachers. This is accomplished through promoting their personal well-being and improving individual effective teaching behaviors.

Lessons Learned

During a formative evaluation of the program, it was determined that the retention rate of the participating teachers in the Induction Year Program at TAMU-CC is 95 percent. Peer sharing and university support has helped beginning teachers remain in the teaching profession. As a result of the sharing sessions with peers, inductees realize that they experience the same problems as other first-year teachers and develop a greater sense of efficacy. Because teachers generally work in isolation, first-year teachers need specific positive reinforcement regarding areas in which they are effective and those that need improvement. Having an objective observer address these areas allows the entry teacher to enhance these specific skills. This will, in turn, have an impact on student learning.

Some 67 percent of the teachers have indicated that topics pertaining to classroom organization and management techniques were the most helpful. Immediate application of the learning principles proved beneficial.

A majority of second-year teachers serve as campus leaders. These accomplishments include serving as grade-level chairpersons and site-based decision making committee members. They have also attended conferences, provided in-services, and written grants.

Project experiences have revealed some ways to improve an already good program. For example, when equipment is available, first-year teachers would send journal entries to university supervisors via Internet or TENET. The supervisors could respond to the concerns of the beginning teacher as soon as possible; thus enabling the beginning teacher to address any problems immediately. Or, as alumni become seasoned teachers, they might be trained as mentors and paired with new participants in the Induction Year Program. Both participants would be teaching at the same school and in the same grade level. Release time would be used by each pair of teachers to observe each other. Mentor teachers would meet periodically with university supervisors to address any concerns they might have regarding their mentees. Induction Year Teachers could share their experiences with undergraduate education majors.

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Southeast Missouri State University

Cape Girardeau, Missouri

Beginning Teacher Assistance

Professional development should begin as soon as the first position has been identified. Beginning Teacher Assistance Programs are the foundation for a life time of growth and development as an educator.

The Beginning Teacher Assistance program is in its fifth year at Southeast Missouri State University. Each year schools in the 26 county university service area are requested to send the university a list of beginning teachers who are graduates of Southeast. These teachers receive two issues of the *Teacher Assistance Newsletter* each year from the university. This publication provides teaching tips, certification renewal information, and announcements of Begin-

ning Teacher Conferences held in the fall and spring each year. The fall conference is co-sponsored with the state principals' associations. This conference features a keynote speaker and small group sessions on topics such as: discipline, community and staff relations, and special education. The most recent conference was attended by more than 200 teachers from over 50 school districts. The spring conference is offered by faculty from Southeast Missouri State University and practitioners from area schools. Topics include classroom management, cooperative learning, certification information, and preparing for a smooth closing of school. The university also offers a summer course and workshops to train mentors for beginning teachers.

Intended Outcomes

The Beginning Teacher Assistance Program will help novice teachers make a successful transition to the profession. The program will positively affect the high drop-out rate in the first three years of teaching. It will reduce the amount of resources and staff time that individual districts must devote to induction.

Lessons Learned

Programs for beginning teachers are most effective when they are joint activities of the area university and the district. The novice educator needs assistance in transferring what has been learned in methodology courses to real world settings. Of special importance are issues related to classroom management, uses of technology, home-school-community concerns, site-based management, and establishing a personal teaching style.

Program activities for beginning teachers should include university-based specialists, outstanding classroom teachers and exemplary parents. In addition, the teacher should be helped to begin a career plan that may include additional certification, advanced degrees, in-service courses, alternative service tracks or the emerging board certification. Finally, the beginning teacher should be helped to recognize traces of burn out, or the need to move to a different school or community rather than making the all-to-frequent choice leaving the profession. Establishing a community of beginning teachers from disparate school districts who feel that they together can make a difference in the field is one of the most important contributions of the beginning teacher program. In the beginning, the program focused on Southeast's graduates. Today, the program would welcome graduates of any institution if they have needs.

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Towson State University

Towson, Maryland

Urban Sites Network

The Urban Sites Network (USN) of the National Writing Project is a national continuing education model for teachers, pre-service through the career span. In 1991, the USN established a national network of locally-based inquiry communities, housed at National Writing Project sites including the Maryland Writing Project at Towson State University, for teachers in 10

cities. Teachers in the USN gather nationally every summer to consider their work as urban educators, to explore reform strategies, and to pose questions of collective importance. When they return to their cities, they work with their colleagues to create sustained inquiry communities. These long-term communities, created to support action research and professional development for teachers working under the most challenging conditions, now provide a point of access to experienced, highly reflective practioners and a wealth of process models for novice teachers. In TSU's urban MAT program, the USN group has shaped the development of student-led inquiry groups which are now structured into a culminating Teachers Researcher course where students follow the processes and are mentored by teachers in the Urban Sites Network.

Intended Outcomes

The intended outcomes of the Urban Sites Network of the National Writing Project are to create and to link locally-based long-term inquiry communities for urban teachers. These communities are intended to provide a structure for teacher-led continuing professional development across the career span.

Lessons Learned

The project reveals that inquiry communities can be a powerful engine of reform, motivating teachers at all levels to pursue deep and comprehensive changes in their practice and sometimes in their schools. At the time, the facilitation of these groups is itself an art-form — particularly in deliberately diverse groups where teachers confront together the tensions and issues of urban education. Focused attention on supporting facilitators, examining processes for group work, and linking groups with each other and with human and material resources is recommended.

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University of Central Oklahoma

Edmond, Oklahoma

Technology Infusion in the College of Education

In the College of Education, technology infusion across the academic community is viewed as vital to the ongoing commitment of the University of Central Oklahoma to provide faculty with the tools, resources and means to perform the three functions of the university: teaching, research and service. By providing the faculty with a technological structure and culture, the college is serving as an enabling force for the individual faculty member who puts time and energy into the process of training and preparing professional educators, who is involved in the pursuit of new knowledge about the teaching and learning process through research, and who provides service to the community through in-service projects and training.

The College of Education is seeking to infuse technology into its teaching, research and service functions. Its definition of technology—the systematic application of what is known to

what to do—reflects its commitment to the process of teaching and learning, as well as the product of preparing quality teachers. The first aspect of the reform is a comprehensive technology planning process that is well underway. The philosophy-based technology plan directs the college through each of the other aspects of this reform. The first of these is the transition of several core education courses to a multimedia-enhanced format. That is, faculty for these courses are being trained and supported to use multimedia technologies to benefit their instruction. A second aspect of this reform is an increased exposure for the faculty, staff and students to technological tools. College administrators are using electronic mail to communicate on a daily basis, as well as using presentation technology to enhance meetings. Finally, the continuing professional development in technology is being facilitated by the construction of a new education classroom building that will support increased technology usage.

Intended Outcomes

The intended outcome of the Continuing Professional Development reform at the University of Central Oklahoma College of Education is an engaged faculty with a growing ability to prepare future teachers by using technology to access current information, model effective instruction, and authentically assess positive teaching behaviors. Additionally, it is intended that this reform will reach to the pre-service teachers in the College of Education and provide them with experience using powerful tools for engaging their students in the learning process.

Lessons Learned

The Professional Development reform in technological infusion has been a positive experience for everyone involved—but not without some growing pains. One of the first lessons learned was that professional development in technology is not a hardware and software issue, but is instead an issue of culture and of the way that members of the college community view their work. This has been an important signpost on the road to reform. Changing the culture of an organization is a slow and delicate, but vital, process. In developing infrastructure, mechanisms, policies and training to accomplish stated goals, a clear understanding of the nature of the work has proved to be paramount. In addition to these wide-reaching lessons, the project staff has learned some important lessons in specific areas, as well. In the area of multimedia curriculum development, the goals of widespread multimedia integration have been slower and less extensive than planned. The approach, motivated in great part by external constraints, proved to be too overwhelming for some faculty members. More important however, was the fact that this initiative was the first real emphasis on using technology in the college. Previously, there was not a college-wide understanding or support structure for general technology use at the personal productivity level in the classroom. If this project were beginning again, the staff would attempt the multimedia development in conjunction with a larger-scale infusion of technologies for daily research and teaching.

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The University of North Carolina

Chapel Hill, North Carolina

North Carolina Center for the Advancement of Teaching at Cullowhee, North Carolina

The North Carolina Center for the Advancement of Teaching (NCCAT) was designed "to enhance [teacher's] self-worth, pride of accomplishment and enthusiasm." The center is actively involved in an advisory role to the leading educational decision-making and policy-setting organizations active in staff development across North Carolina. Every activity at NCCAT is about professional development, whether it is a five-day interdisciplinary seminar in the arts, sciences or humanities for pre-K to 12th grade teachers across the state; an outreach program offered in counties isolated from the mainstream; or a problem solving retreat for a school faculty.

Most educational reforms have been undertaken without regard to renewal. NCCAT establishes a new paradigm that renewal must precede educational reform. Regardless of steps toward international standards or increased use of technology, the teacher remains the determining factor in providing quality learning for every child. NCCAT encourages teachers by offering intellectual stimulation and creative renewal. All programs are designed to provide teachers with opportunities to stretch their minds, sharpen thinking processes, and enhance conceptual skills needed for effective teaching. Significant interdisciplinary issues are explored in seminars. Individually designed artistic or scholarly projects are developed in a Teacher Scholar Program. NCCAT was asked by the North Carolina General Assembly to help school districts design successful professional development programs to solve locally-identified needs and to assist with such initiatives as the North Carolina Teacher Academy which focuses on professional development by teachers for teachers. Additionally, groups of teachers, principals and superintendents come together at NCCAT to openly discuss issues and design plans of action in a relaxed congenial setting. They, as do all participants, leave with fresh perspectives and a new understanding of their schools, the field of education, and each other.

The center is a part of the University of North Carolina. It is hosted by Western Carolina University, Cullowhee. WCU provides physical, fiscal and support services to the center, which serves all of North Carolina.

Intended Outcomes

The first statewide program of its kind in the nation, the North Carolina Center for the Advancement of Teaching, is dedicated exclusively to the advancement of teaching as an art and a profession and seeks to provide the time, place and framework for intellectual and creative renewal of the state's career teachers.

Lessons Learned

The NCCAT experience verifies Michael Fullan's belief that "significant educational change consists of changes in beliefs, teaching style and materials, which can come about only through a process of personal development in a social context." The delivery of professional development programming is crucial to its success. Residential programming, which is ideal, is offered, but there are other important factors. Participants are always treated with trust and

respect. Each topic has experiential, ethical and moral components, interactive formatting, processing and reflective time. Teaching and learning principles are based on adult learning theory and sound research. A social context is deliberately included. The teachers become learners once again, pursuing interdisciplinary topics and approaches with good teaching practices modeled by staff and guest presenters. One area of improvement, however, is in better use of state-of-the-art technology in the programs.

Progress is defined as moving forward or as progression from a simple form to a more complex one. While retaining current services which involved nearly 3,000 participants in programs in 1993-94, the center must continue to move forward. The center staff is focusing on increasing participation of men, minorities and teachers in distant parts of the state, offering more opportunities for alumni, and enhancing the emphasis on teaching as an art and a profession. The center is constantly analyzing resources to accomplish its vision and mission and continuing to experiment with shorter formats and locations. An outreach program that is vital, visible and versatile is being developed.

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University of Northern Colorado

Greeley, Colorado

Teacher Induction Program

The Teacher Induction Program is a wide variety of services offered to school districts on a contractual basis that will facilitate the growth and development of beginning teachers. The program was created as a service to school districts who are required to implement induction programs for all beginning teachers. In consultation with local school leaders, it was clear that many were not able to meet their new state obligations, thus the university built an array of 12 options which school districts could acquire from the college to build their own capacity through mentor training, bring new teachers into their schools through a partnership activity, or enter into an arrangement where college faculty serve as external observers and supervisors.

Intended Outcomes

The purpose of this reform is to extend teacher preparation into the first year of teaching through a partnership between the College of Education and the local school. The intended outcome is a better transition from teacher education into teaching.

Lessons Learned

School districts are looking for better ways to partner with the college. The services described above have provided them with an opportunity to work with the college in the beginning development of their new teachers. Most of the services provided were found to be of interest to the local school leaders.

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University of Southern Colorado

Pueblo, Colorado

Alliance Dropout Prevention Program

The Alliance Dropout Prevention (ADP) project is a three-year program designed to establish workable alternative education programs for dropout-prone youth. The program gains strength from the unique Educational Alliance of Pueblo between Pueblo School District No. 60 and the University of Southern Colorado. The primary goal of the program is to enhance the knowledge and skills of teachers who have as their primary assignment the education of youth identified as "at-risk." Particular emphasis has been placed on applied academics, multicultural awareness, principles and processes of total quality management in the classroom, standards-based education, cooperative learning, and learning styles. In addition, workshops for teachers have included computer-assisted instruction in language arts, mathematics, reading and social studies. Integral components of the professional development program have been Site-Based Shared Decision-Making and Gang Awareness Training.

The program seeks to establish within the school district dropout prevention and retrieval programs that will achieve the goal of retaining and graduating more students, and direct resources and activities toward increasing the success of Hispanic students. The ADP program is inducing systemic change in the way the school district serves its Hispanic population by designing successful dropout prevention programs and using models developed elsewhere. Its focus is on student-centered strategies identified in "America's Choices: High Skills or Low Wages," and the 1990 "Report of the Commission on the Skills of the American Workforce". The ADP program is also linking other reform initiatives and creating a new capacity to meet the needs of Hispanic students.

Another major component is the implementation of a proficiency-based assessment system that includes a Certificate of Initial Mastery (CIM) at the 10th grade level. This will permit the appropriate placement of students into college preparation programs, occupational/ career education, or workforce training and placement.

Intended Outcomes

The project seeks to design and deliver professional development programs for building high-level teachers and staff. The goal is to enhance their capacity to assist at-risk students and increase their chances of completing high school and enrolling in postsecondary education.

Lessons Learned

The Center for Teaching and Learning has a primary mission of preparing teachers of quality and distinction. It is an integral component of the Educational Alliance of Pueblo between the University of Southern Colorado and the Pueblo School District No. 60. The first distinguishing characteristic of the center is its faculty complement. It includes teacher education and academic discipline specialists who serve the center in a variety of roles. These include the design and development of a K-16 coordinated curriculum, teaching university courses, involvement in 15 grants, school-based applied research, student mentor projects, and educational technology initiatives. The faculty also includes four curriculum specialists from District No. 60 assigned full time to the Center for Teaching and Learning.

This is the context within which the Alliance Dropout Prevention program operates. As in all center initiatives, systemic change is a goal of the ADP. Major challenges include resistance to systemic change in both K-12 and higher education, transforming K-12 and higher education cultures simultaneously, developing reward systems for participating in such a grand experiment, and helping people make paradigm shifts to systems thinking. Other challenges include varying degrees of time, energy and commitment among the participants.

Significant progress in resolving these challenges has been made, although the magnitude of the transformation, differences between K-12 and university cultures, and the difficulty of coordinating many successful projects promises to consume time and energy for a significant period of time. In summary, the ADP Program is proud of its successes, while realizing that the magnitude of change being proposed and the major shifts in mindsets are taking much more time than anticipated. Still, there is a clear focus and constancy of purpose that will serve the project well over the long term.

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The University of Wisconsin-Whitewater

Whitewater, Wisconsin

Beginning Teacher Assistance Program

Mentoring programs for beginning teachers address their continuing professional development needs at an especially critical time in their career, just when they begin to set a professional trajectory that may last for 30 or more years. More than offering an alternative to the "sink-or-swim" approach to beginning teacher induction that has unfortunately characterized the occupation of teaching for years, the Beginning Teacher Assistance Program helps beginning teachers to "come up to speed" more quickly and with less reliance on learning only through experience.

Participation in the program is voluntary for beginning teachers and mentors. Mentors take a graduate course in the principles of rnentoring, with the option of taking an advanced course. Beginning teachers enroll in a graduate course. Beginning teacher/mentor teams meet weekly, make classroom visits and attend monthly meetings at the university. Beginning teachers also complete a Professional Development Journal. The monthly meetings enable the beginning teachers and mentors to meet with each other outside of their workday and to network with other teachers employed in different districts. Meetings generally include a presentation on a topic of interest to the participants. Some topics are practical (e.g., Parent/ Teacher Communications), while others are more theoretical (e.g., Research on Effective Teaching). Each team meets at least once each semester with a program consultant who serves as a link between the participants and the program director and the university resources to which he or she has access. Finally, teams can apply for a small grant for professional development activities (e.g., attending a conference). An Advisory Council, including former participants, principals and superintendents, provides the director with an important forum for ensuring the program's responsiveness to the needs of participants.

Intended Outcomes

The intended outcome of the Beginning Teacher Assistance Program is to provide small to medium-sized school districts with a high quality university-based mentoring program for beginning K-12 teachers.

Lessons Learned

The Beginning Teacher Assistance Program proves that it is possible to make a difference in a beginning teacher's early experiences, substituting a costly "trial by fire" with a system of support both within and outside the school that eases the beginner's transition from a student of teaching to a teacher of students. Expecting excellent teachers to be successful mentors without adequate preparation for the mentor role is unreasonable. Mentoring is an exciting, but new role for most teachers, one requiring familiarity with an established knowledge base (e.g., stages of teacher development, andragogy) and a well-defined set of skills (e.g., systematic observation of teaching, conferencing skills). Mentors derive at least as much benefit with respect to their own professional development as do their proteges.

Teachers and their mentors should be identified well in advance of the school year, and beginning mentor training activities should begin much earlier. However, the Beginning Teacher Assistance Program serves real beginning teachers in real schools, and actual hiring practices prohibit commencing program activities at a more ideal time. One other area of change the program is exploring is collaborating with a local educational service agency to broaden participation in the program.

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West Chester University

West Chester, Pennsylvania

Educator Internship Program

The focus of the Educator Internship Program is to provide meaningful professional development opportunities to practicing educators. It is especially designed for experienced educators who have several years of teaching experience and relatively little recent or direct experience with occupations outside the educational system.

As a collaborative effort of the Berks County Intermediate Unit and the School of Education, the project places elementary and secondary education classroom teachers and counselors in internship positions with businesses and industries in the community. Each intern is assigned a mentor from the host company; together they develop a learning contract, which is an individualized plan for the internship experience. The interns, with the direction and support from their mentors, work on projects for the company on a full time schedule four days a week. Interns also meet with program staff and a professor from the university one day a week to discuss their placement experiences and current issues in business and industry which impact education. These sessions also provide an opportunity to examine the internship experience and to share ideas related to the development of instructional and curriculum appli-

cations for their classrooms. Interns also develop a list of employment skills and opportunities by interviewing the human resource professionals at the internship site. Interns prepare a curriculum application which includes an analysis of the outcomes, skills, and concepts to be developed in their classroom students. The curriculum application also includes a description of the new content, methods, activities, resources, and materials to be used to effect student outcomes.

Intended Outcomes

The Educator Internship Program provides opportunities for classroom teachers and counselors to participate in a summer internship in business and industry to develop an understanding of the current labor market and necessary skills and abilities to succeed in the world of work; to develop an awareness of the impact of technology on the workplace; to develop applications in the academic curriculum relevant to the world of work; and to build school/community relationships. The teachers impart this information to their students to better prepare them for the world of work. The project also attempts to develop in participants a renewed commitment to the roles of public education and the teaching profession.

Lessons Learned

The primary goal of the project has been clearly documented in the range of curriculum applications that have been developed over the seven years of operation. Perhaps equally significant, however, has been the impact on individual educators and their renewed commitment to the teaching profession. This outcome is most apparent for the most experienced classroom teachers. The internship program also contributes to building meaningful relationships between the public schools and the business community. The involvement of the university provides resources for curriculum development and also adds credibility to the professional development component of the program, particularly in the view of public school administrators. While similar projects have provided opportunities for classroom teachers through the involvement of public schools and businesses or universities and businesses, the three-way partnership seems to have the greatest potential for a sustained and valued experience for classroom teachers and the community. At the same time, three-way partnerships are more complex to manage and also more demanding in terms of sustaining support. For example, the effectiveness of the project manager from the local educational agency is fundamental in recruiting classroom teachers and also securing internship placements. Similarly, experience has shown that the interest, support, and abilities of the university professor are critical ingredients in sustaining and enhancing the project.

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Winona State University

Rochester, Minnesota

Graduate Induction Program

The Graduate Induction Program is a successful K-12/university partnership between Winona State University and the Rochester Public School District. The major goals of the program include providing support to 18 first-year elementary teachers (graduate fellows), enhancing

the clinical supervision of student teachers through the use of veteran practitioners (clinical supervisors), and providing veteran teachers with professional growth opportunities.

Each graduate fellow assumes full responsibility for an elementary classroom. During two summers and three academic quarters, he or she receives a fellowship and tuition waivers for credits leading to a Masters of Science in Education. Throughout the year, each graduate fellow receives support from a clinical supervisor. The support received is designed to assist the graduate fellow with challenges specific to the beginning teacher.

During their two-year period as clinical supervisors, veteran teachers are released from the classroom on a full-time basis to work with the graduate fellows and student teachers. They are provided with professional growth opportunities, including time and money to attend national conferences/workshops and tuition waivers for advanced graduate work. They also have the opportunity to get into 16 elementary school buildings in the district, enabling them to observe a variety of teaching styles and organizational patterns.

For the school district, the program serves as a mechanism for providing veteran teachers with an opportunity to grow professionally over a two-year period. From the standpoint of the university, the program is a vehicle for supporting the development and growth of pre-service and first-year teachers.

Intended Outcomes

The intended outcomes of this program are to induct first-year elementary teachers into the profession, to provide a professional growth experience for veteran teachers, and to strengthen the supervision of student teachers.

Lessons Learned

Each group of 18 graduate fellows is uniquely different, but because they spend 15 months together, they become a very close knit group. Feedback indicates that it is difficult for teachers to make the transition back to the classroom after being out of the classroom for a two-year period. The program experience reveals that it is important to involve all stakeholders from the beginning in the planning stages of a program.

If beginning again, the program staff would get to know each graduate fellow on an individual basis earlier in their fellowship year. In the past two years, the graduate fellows have been writing journals on a weekly basis for the program director. This has provided some worthwhile information regarding each graduate fellow. Group discussions regarding students' dynamics with other students should begin early and continue throughout the program. Experience indicates that the building principals should be involved early during program planning and development, which would provide for better communication and ownership of the program. Finally, a formal support program to help the veteran teachers returning to the classroom after serving as clinical supervisors should be developed.

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8

Alternative Routes to Licensure

Black Hills State University

Spearfish, South Dakota

Middle School Education Major

The purpose of the middle school education major is to provide an opportunity for students and faculty to respond to the educational needs of the middle level students (grades 5-8). The curriculum addresses and focuses on the "in between-agers" and their specific needs. The undergraduates in this program are exposed to a variety of curriculum models, but concentrate on the interdisciplinary curriculum, the thematic unit approach, and teaming for planning and implementation. The program establishes continuity of theory and practice between the primary grades (K-4) and secondary school (9-12). Through this program the future teacher can facilitate the introduction and adoption of needed innovations, research and quality standards in every phase of schooling for the early adolescent child. The program emphasizes developing teaching skills to help the middle school learner become life-long learners (e.g., critical thinking, inferring, generalizing), to cope with their personal development, and to introduce organized knowledge, i.e., establish opportunities to expand and experience major ideas and subjects.

Intended outcomes

In the state of South Dakota and many other states, in order to become a certified middle school teacher, one must first be certified as an elementary or secondary teacher. The middle school education major provides a program of study that centers on the middle school philosophy and teaching methodologies which leads to immediate licensure.

Lessons learned

In developing this program of study, views were obtained from the middle school teachers, parents and staff. Involvement of the stakeholders in developing this pre-service major is critical. The formation of advisory groups and panels are essential for suggestions and review of curriculum. Extensive research was performed to determine what constitutes a successful middle school program and what teachers should know before they begin their careers as a middle school teacher.

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California State University, Hayward

Hayward, California

California State University, Hayward-New Haven Partnership Program

The CSUH-New Haven Partnership Program teachers are provided a route to certification which is neither university nor school district dominated, but is a program in which responsibility for their preparation is shared equally by both institutions. The program is fully accredited by the California Commission on Teacher Credentialing.

While a number of California school districts are now authorized to train their own teachers (district interns), CSU Hayward and the New Haven Unified School District decided to join forces to recruit and select students, to plan and teach the courses, and to mentor the candidates. All students are placed, whether as student teachers or as (employed) interns, in the secondary schools of the district, along with a master teacher (for student teachers) or a partner teacher (for interns). The students in the program become true members of the faculty of the schools to which they are assigned—beginning several days before the students arrive in September and extending to the end of the year. They also participate fully in faculty meetings, curriculum planning groups, and in-service training programs. All course work is held at 4:30 p.m.. The course work, being co-planned between the institutions, can be particularly responsive to the kinds of issues which present themselves in the district's classrooms. Because students can be gainfully employed in the district, many candidates from diverse backgrounds who would not be afford to attend a training program for a full year without employment are able to attend.

Intended Outcomes

In the CSUH-New Haven Partnership Program, the school district and CSU Hayward jointly recruit, select, educate and place secondary teachers from varied backgrounds for the schools of the New Haven Unified School District (Union City, Calif.). Course work is co-planned and co-taught by university and school district personnel and takes place in the school district.

Lessons learned

If the university and school district were to create the program again, a longer lead time would be built in before beginning student recruitment, probably one full academic year. The university and the district can plan a richer training program for new teachers than either could have produced alone.

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Christopher Newport University

Newport News, Virginia

Alternative Licensure

By re-sequencing some courses and allowing students to take an entire semester of education courses, the university was able to provide a one-year alternative licensure program for those students who came to campus with an earned degree in a liberal arts or science degree and who were seeking licensure in middle or secondary school. These students can take one semester of education courses (18 semester hours) and then an internship semester with two additional courses (16 hours) and still complete all the requirements for licensure.

Intended Outcomes

The university wanted to prepare teachers in the arts and sciences through an alternative licensure program, making it both feasible and affordable, thereby increasing the number of teachers to meet schools' needs.

Lessons Learned

The program demonstrates that there are students who meet minimum entrance requirements and can accomplish this licensure in an academic year. The university would like to see the program extended to one calendar year to spread out the courses and not have such an intensive two semesters. Being able to shift a couple of courses to a summer semester would lighten the load for the students. The university would also like to continue to limit enrollments to middle and secondary teachers; an elementary program could not be effectively completed in two semesters.

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Georgia State University

Atlanta, Georgia

Alternative Preparation Program in Early Childhood Education

The Early Childhood Education Alternative Preparation Program (ECEAPP) is a field-based master's degree program designed to facilitate entry into the teaching profession for individuals with a baccalaureate or higher degree in an area other than education. The length and level (master's) of the program are incentives to attract mid-career changers, males and minorities.

The ECEAPP is for initial teacher licensure. It is conducted in partnership with four school systems. Student selection is based on GPA, GRE score, writing score, an interview, and letters of recommendation. Teachers and/or administrators from the school systems and ECE faculty are in interview teams and make final selections.

During the summer, students enroll in child development, social foundations, and special education. From the day teachers report to work (mid-August), students are in two different schools three days a week while taking content methods courses on campus two days a week. During winter and spring quarters, students are placed in full time field experiences in two different schools. Each student has urban and suburban experiences at the kindergarten and two other grade levels (1-5). University classes meet two nights a week.

For certification in early childhood education, individuals with a college degree traditionally had to enroll in the two-year undergraduate teacher education program. This alternative program allows a cohort group of those individuals to engage in a year-long intensive master's program for earning teacher licensure.

The ECEAPP is an intensive program providing a continuous blend of academic theory and classroom practice. The partnership school systems seek out program graduates for teaching positions.

Intended Outcomes

The program seeks to attract persons exploring mid-career changes, males and minorities into the teaching profession, even though these individuals have degrees in fields other than

education. The field-based experience, the structuring of the program, and the completion of a master's degree are all important incentives.

Lessons Learned

The program is in its fourth year. Each year, the faculty review and refine it. The most important lesson has been how much preparation students need for working in inner city schools. To accomplish this task, the social foundations course includes considerable content focused on urban schools and children of poverty and multicultural issues. Another essential program component is communication between the university and school systems. One faculty member coordinates the program including dealing with student problems and dealing with school-based educators.

The program is somewhat expensive in that students pay for 60 quarter hours of tuition and are unable to work for pay. Funding for stipends should be sought. The program has been relatively successful in recruiting males and minorities (20 percent of the students in the first three cohorts, as opposed to 8 percent in the traditional program); reducing program costs could increase those numbers.

Research on the program indicates that it is enrolling and graduating students whose quality is comparable to or higher than the traditional students' quality.

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Jacksonville State University

Jacksonville, Alabama

Alternative Teacher Preparation in Emotional Conflict

The Alternative Emotional Conflict program includes 39 graduate hours for teacher certification. Students enrolled in the program in spring 1991, were the first to complete the internship. It was discovered during the internship that alternative students felt less prepared to meet the academic and social challenges of the classroom than traditional undergraduates completing the internship at the same time. Alternative students indicated that an imbalance existed between methodology and practical requirements.

A follow-up study of the alternative and traditional students in emotional conflict was conducted for program evaluation purposes. Although alternative students were rated high by public school cooperating teachers, they expressed concern regarding too few methods courses and practicum experiences before the internship semester.

Based on the results of the year-long qualitative study (including interviews and surveys of alternative and undergraduate emotional conflict students), undergraduate methods and practicum were added to the alternative program as undergraduate deficiencies. A second study will be conducted when the current students enrolled in alternative programs in emotional conflict complete internship requirements in the fall 1995.

Intended outcomes

Teacher education reform must result in programs designed to prepare teachers to meet academic and social challenges of the classroom of the nineties. While alternative teacher education programs are a popular means for teacher preparation, there must exist a balance between academic coursework and actual application or practicum experiences.

Lessons learned

Although most alternative students are older, more mature, and beginning second careers, many appear to be apprehensive about their abilities to meet the demands and challenges of the classroom of today. Most are willing to invest in additional coursework and practice if the experiences result in better preparation.

Students enrolled in the traditional undergraduate emotional conflict programs appear to be more confident in their teaching abilities. Based on interviews and surveys, this confidence can be directly attributed to methods courses and 600 plus hours of clinical experiences in a variety of public school settings.

Individuals responsible for the design of programs in teacher education should be cognizant of the importance of existing balances between methods course requirements and practicum. A well qualified teacher must experience this programming balance for successful, exemplary teaching to occur.

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Northern Arizona University

Flagstaff, Arizona

The DeWitt-Wallace/NAU/Peace Corps Fellows Program

Returned Peace Corps volunteers are admitted into the program and provided with an orientation to life and the educational system on Indian reservations. They then secure special two-year (nonrenewable) teaching certificates which allow them to obtain teaching positions on one of the numerous Indian reservations in the state. The university assists them in securing these positions. Fellows then work on the campus for three consecutive summer terms to attain the credits needed to earn full and regular certification. While Fellows are working in schools, the NAU campus contacts them monthly. Fellows also return to campus once each term for an on-campus seminar. Special consultants and advisors also provide support to the Fellows.

Intended Outcomes

The goals of this project are to provide an alternative route to teacher licensure for selected students who are returned Peace Corps volunteers and to provide service to Native American students and their families.

Lessons Learned

Students entering the teaching profession following this alternative route are quite capable of providing high quality services to children and families. Because of the success of this program, the university is interested in examining other alternative approaches to teacher preparation and certification. To improve the program, increased the connection between Fellows and the campus (e.g., e-mail, Internet, etc.) and more on-site consultation are being planned.

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State University of New York, College at Cortland

Cortland, New York

Post Baccalaureate Certification in Secondary Social Studies

This program is important because of the need for teacher education programs to provide avenues for people who have the necessary academic background, the necessary personality and character traits, and the necessary motivation for teaching to become prepared to teach in as short a time as possible. These people do not have the luxury of taking a series of education courses over time to become certified. Unlike traditional programs, Cortland's Professional Semester program requires them to sacrifice only one semester in their quest for teacher certification.

Cortland's Professional Semester eschews a course structure in favor of an intensive, integrated period of study. The semester is broken into three parts, a six-week instructional period prior to student teaching, an eight-week student teaching period, and a two-week instruction period following student teaching.

The program is based on the belief that the information beginning teachers need to know about education and the teaching/learning process has a unity which is best understood if presented as an integrated whole; that students are most highly motivated to learn about teaching when consumed by the anxious realization that in a few weeks they will be teaching; that an intensive, total immersion program better allows for the creation of a supportive classroom environment; that instruction in teaching is more valuable when students can prepare unit and lesson plans for specific classes; that information about teaching is most efficiently presented and most thoroughly learned by capitalizing on the workshop mode of instruction; and that the best time for people preparing to teach to reflect upon and inquire about issues relating to teaching is in the period immediately following student teaching.

Intended Outcomes

The major outcome is that this program allows people of various ages from a variety of work backgrounds who wish to become prepared to teach secondary school social studies and who have a baccalaureate degree with a major in one of the social sciences (psychology excepted) and who meet the state requirements for knowledge of a foreign language and study in ado-

lescent development, to join undergraduates in an immersion certification program in secondary social studies. They participate in Cortland's highly successful undergraduate Professional Semester in Secondary Social Studies. A second outcome is that the entire quality of the program, for both post-baccalaureate and undergraduate students, has been enhanced as a result of the maturity, motivation and commitment these people have brought to the program.

Lessons Learned

A Professional Semester format for preparing secondary school teachers works very well. Student evaluations of the program made upon the immediate conclusion of the program have been universally laudatory. Written and oral comments from former students, cooperating teachers and administrators have been similarly laudatory. The vast majority of students indicate that the Professional Semester has been the best educational experience of their lives. Perhaps because of this, the project staff are able to draw upon graduates of the program and others familiar with the excellence of the program to provide half-day presentations on particular items relating to teaching, assisting the program in remaining on the cutting edge of educational practice.

The project demonstrates that post-baccalaureate students bring a maturity and motivation to their study which challenges and energizes the undergraduate students. One of the things now done differently is that postbaccalaureate students are no longer accepted on a first-come, first- served basis. Rather, they must now compete for the limited number of slots available, raising the overall quality of the program.

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Tarleton State University

Stephenville, Texas

The Tarlton Model of Accelerated Teaching (TMATE)

Tarleton State University is situated in Stephenville, Texas, a relatively rural area in the central part of the state. The university has a long tradition of on-going, collaborative work with the many small, rural schools in its service area. (There are over 200 rural districts within a 125 mile radius of the university.) In response to needs of these districts to secure teachers in high-need areas such as math, science and special education, TSU developed the TMATE program in partnership with a consortium of these rural school districts.

Opportunities in the TMATE program are broadly disseminated in area newspapers and professional newsletters. Potential candidates must hold the bachelor's degree and meet rigorous GPA requirements. After undergoing a consultation/screening process by TMATE staff during the late spring, candidates interview with participating TMATE districts to secure the paid full-year, full-time teaching internship which comprises the "core" of this accelerated teaching program. Interns then participate in a 12-semester credit hour summer instructional block held on the TSU campus. Block courses concentrate on instructional design, teaching

methodology and classroom management. Interns practice teach at this time in the SAIL program, a special summer enrichment program for K-8 students. After the pre-assignment block, interns assume full-time teaching duties. They are closely supervised in this teaching assignment by an assigned school-based mentor, as well as a university supervisor. Interns return to campus during the internship year for a series of weekend seminars. After the full year of teaching, interns participate in the post-internship block, which serves as a "finishing school" for these young teachers and prepares them to take the licenser examination.

Intended Outcomes

The TMATE program was developed to identify a cadre of capable young professionals and to provide these individuals an opportunity to enter the teaching profession by participating in an accelerated, field-based teacher preparation program. The intent was to enlarge and diversify the pool of candidates available to the teaching profession, especially in high-need disciplines such as math, science and special education.

Lessons Learned

The TMATE program was the first university-based program in the state, and has consistently received accolades as one of the state's best performers among alternative certification programs. In its eight years of existence, TMATE had almost 400 interns complete the program, and as of the 1993-94 school year, almost 93 percent of these young teachers had been permanently placed in rural school districts. In 1993, the program was recognized by the National Association of Teacher Educators as one of the nation's Distinguished Programs in Teacher Education.

During the 1993-94 academic term, TMATE staff conducted a comprehensive evaluation of the program. The results were most helpful in underscoring the tremendous success of the program as perceived by past participants and employing school districts. This assessment has also guided refinements in the program. As a result of the evaluation, several modifications have been made in the financial structure of the program, the course structure of post-internship classes, and a new program area in bilingual education was targeted for development.

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The University of Maryland Baltimore County

Baltimore, Maryland

Post Baccalaureate Teacher Education Program

The UMBC Post Baccalaureate Teacher Education Program is a Maryland State Department of Education-approved graduate program for individuals who hold baccalaureate degrees. The program is an alternative track in the master's degree program which includes courses of study in ESOL/Bilingual Instructional Systems, Early Childhood, Elementary, and numerous Secondary certification areas.

The program is designed for graduate teacher certification within the regular master's degree program. This is not a Masters of Arts in Teaching Program. The certification portion of the program consists of the core requirements for the degree and special elective courses for teacher certification. Teacher candidates typically complete the requirements for certification first, obtain a teaching position, and then complete the remaining requirements for the Master of Arts degree. The design is flexible and requires a mandatory practicum in schools each semester. Courses are held evenings. Candidates can complete the program in as few as three semesters and take as long as three years.

Intended Outcomes

The Post Baccalaureate Teacher Education Program provides opportunities for persons with a bachelor's degree to obtain teaching certification while working toward a master's degree. The program is designed to accommodate needs of career changers, late deciders, and persons planning an early retirement.

Lessons Learned

The program attracts high quality students with mean GPA of 3.4. Its flexible design accommodates needs of career changers, but its rigorous requirements for teaching field competency prove to be an asset for employment. The program integrates theory and practice. The instructional systems development focus improves professional decision making. The program continues to evolve through formative and summative evaluation with candidates.

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The University of Texas at San Antonio

San Antonio, Texas

Master of Education in Curriculum and Instruction (MAECIT)

The MAECIT Program prepares nontraditional students for licensure in a nontraditional program. In an effort to meet a community need for recruiting teachers who can successfully address the challenges of teaching poverty children with diverse cultures and needs in San Antonio and surrounding areas, the MAECIT Program provides a process for training a select population of applicants. These applicants, returning Peace Corps volunteers, retiring military personnel, and local minorities bring successful and unique work and life experiences to a second career in teaching. The program qualifies as an alternative route to licensure because it is a graduate rather than an undergraduate or post baccalaureate program. It qualifies as an alternative route also because the course work is designed to be completed both for the master's degree and licensure.

The MAECIT Program is a two-year program in partnership with the Peace Corps and area school districts. Participants work toward a master's degree in education with elementary certification. Within the certification process, participants can select a specialization in either reading or early childhood education. A total of 39 hours of course work is required.

Students make a commitment to spend two years in a participating district. Students proceed through the program as a cohort, beginning with the summer term. Students complete 12 hours the first summer and interview for employment in participating school districts. During the fall and spring of the first school year, they take six semester hours each semester in addition to their teaching responsibilities. During the second summer semester, 12 additional hours are taken, completing requirements for the master's degree. During the second school year, students complete an additional three hours needed for their certification specialization.

The first cohort of the MAECIT Program was initiated in June 1994. At the present time, 16 participants are teaching in four participating school districts in grade levels ranging from kindergarten through eighth grade. Eleven participants are specializing in reading and five in early childhood education.

Intended Outcomes

The MAECIT Program will prepare teachers to teach in elementary grades in inner city schools in the San Antonio area . It will enable cohorts of returning Peace Corps volunteers, retiring military personnel, and local minorities who have a bachelor's degree in a field other than education to earn a master's degree in education and elementary certification in a program designed to meet the needs of participants and educational needs of inner city children in the San Antonio area.

Lessons Learned

Many lessons have been learned through the experiences of the first MAECIT cohort. A first surprise was the insecurity and apprehension of participants as they anticipated teaching the first few weeks of school. Although some of the candidates had master's degrees in other fields and had experienced success in their first profession, they were apprehensive about their ability to be good teachers. No matter how carefully the summer program was planned to ensure that they were prepared adequately, they felt that more and/or different experiences could have been provided. In addition, interns were surprised by the complexity of the classroom and the multitude of teaching responsibilities. It was difficult initially for them to understand teaching as an interactive process within a carefully designed environment, rather than their original simplistic notion of delivery of content.

The project also revealed that the anticipated expectation of school needs for teachers were different from the reality. The original program offered an additional general elementary education option. As work with school districts began, it was found that the most pressing need is for bilingual and reading teachers. These priorities need to be considered for future cohorts.

When selecting the first cohort of participants, personal interviews were not included as part of the process, partly because of time constraints, and partly because of expenses that would be incurred by applicants from distant states. As a result of some of the difficulties encountered by the first group of participants, it would seem that a personal interview is essential. Moreover, more attention needs to be paid to personal history factors that can impede success in a rigorous program that is delivered in a concentrated period of time.

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University of Wisconsin-Parkside

Kenosha, Wisconsin

The Clinical Dimensions of Teacher Education: Experimental Certification of Ethnic Colleagues for the Elementary Classroom (EC3) Program

More and more attention is being given to the fact that a large percentage of students are growing up in female-dominated homes, which suggests that more attention must be given to including males at the elementary teaching level which was previously dominated by females as well. Nationally more teachers of color are needed at all levels, particularly at the elementary level, which is crucial to the development of students. This program provides an integrated, multicultural curriculum delivered in an atypical time pattern as a way of attracting more males and more minorities to teacher certification at the elementary level.

Students with a bachelor's degree, who belong to a designated racial group or are males, who have demonstrated an interest in young people through volunteer or extracurricular activities, and who are willing to work in grades 1-5, are admitted through a rather stringent admission process to the EC3 program (Experimental Certification of Ethnic Colleagues for the Elementary Classroom). Students complete six integrated modules which are team taught by faculty and school district personnel and complete a semester of student teaching. The program is completed in 15 months, which provides a Wisconsin license to teach in grades 1-6. Students must agree to work for at least three years in Southeastern Wisconsin or Northern Illinois.

Intended Outcomes

This reform provides a fast-track alternative for males interested in teaching at the 1-6 level and is particularly designed to attract individuals of color who may wish to change professions and enter teaching at the elementary level.

Lessons Learned

The greatest difficulty with this reform movement is finding financial assistance for adults who have families and cannot afford to quit their positions. More effort needs to be given to obtaining financial assistance for this project from the ethnic communities.

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Western Washington University
Bellingham, Washington

Seattle Urban Teacher Education Program

This program is a five-quarter, 60 credit hour certification effort. Candidates must be current Seattle School District employees who hold a B.A./B.S. from an accredited university with an endorsable academic major. A demographic breakdown of participants finds close to one-half of the students to be African American; one-third Asian, Hispanic, or Native American; and the balance of the participants to be Caucasian. Approximately 60 percent of the group are male. The district agrees to employ successful graduates, who receive service credit to pay back scholarship funds. Curriculum teams of district and university faculty work cooperatively to develop and deliver course work. A district/Woodring College of Education/student advisory group provides on-going evaluation of all program components. Additionally, each course is individually evaluated by faculty and students. Faculty meet regularly to chart student progress, discuss course content, and make appropriate program adjustments. Theory and foundations courses are combined, facilitating a maximum forum for teacher candidates to interact with current school district practitioners and Woodring College of Education faculty. Experimental course numbering maximizes program flexibility. Methods classes are provided in an integrated block and laboratory/ practicum experiences are held where student teaching takes place, giving the teacher candidates maximum and specific on-the-job training. Program graduates mentor current program participants, providing invaluable support and an on-going program evaluation.

Intended Outcomes
The program is designed to provide an elementary teacher certification program reflecting the unique needs of an urban student population and responsive to minority teacher preparation candidates. It further intends to provide school district scholarship support for qualified, upwardly mobile, minority Seattle School District employees interested in moving into an elementary teaching position from a variety of classified assignments.

Lessons Learned
This project has been extremely productive, with graduates doing exceptionally well in their first year of teaching. Preparations for a third cycle are underway. This district-funded approach, with a concentrated curriculum which is particularly sensitive to the students cultural expectations, attracts minority applicants and provides for their success.

In the first cycle students were allowed to complete some course prerequisites during the first and second quarters of the project while accomplishing program requirements as well. This was found to have an impact on student success. Currently, all prerequisites must be fully satisfied before applicants are admitted.

Initial methods course offerings assumed that program participants could move immediately to current teaching methodology. It became evident that participants still need traditional skills and a solid conventional planning background before moving from a basic approach to more innovative teaching. Course content has been modified to provide this support.

Early student teaching experiences closely involved Seattle School District personnel in the final evaluation process. It was discovered that public school supervising personnel needed mentoring during student teaching supervision to facilitate a close articulation between course instruction and the field practicum. Therefore, current students will be supervised by university personnel.

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9

Changing Role, Responsibilities and Reward Systems for Faculty

James Madison University

Harrisonburg, Virginia

Breaking the Mold in Teacher Education

The early childhood and middle education programs at the university were completely restructured to offer a seamless web of learning through carefully articulated skills and content in a spiral curricula format. The curricula reflects an efficient streamlining and realignment of program content to end the fragmentation and duplication that often characterizes pre-service programs. It contains well developed content and skill strands in technology, parent and community partnerships, issues of multiculturalism and diversity, and classroom management. A portfolio tracking system for documenting and reporting student progress is an integral component that meshes well with the experiential emphasis of the program.

Delivery of instruction is in unique units of time and experience, rather than in the traditional credit-for-contact model, thereby providing for more flexible and relevant use of student time. Thus, the traditional three-credit, three-hour courses are replaced with more flexible block scheduling that is detached from credit values but linked with specific learning activities in a variety of formats in large and small group as well as individual efforts. The program as a whole carries a block of credits on a continuum of experiences offering greater content and skill development in a more flexible time frame, with increased interactions between student and faculty for dialogue, feedback and mentoring. Team teaching exposes students to a variety of perspectives and pedagogical approaches.

Intended Outcomes

In response to the mandated changes in higher education that address the issues of delivering content efficiently, serving an expanding student body with existing or minimal increases in resources, and creating programs that expeditiously offer excellence in education, as well as a commitment to enhancing the pre-service preparation of teachers, this project has redesigned, redefined and revitalized teacher preparation to fully mesh all of the vital information, skills and issues surrounding the field into a program that is an integrated, cohesive whole that breaks the traditional boundaries of time/effort relationship between students and faculty.

Lessons Learned

The major difficulty with this systems-level change project has been effecting change in the entire system in increments while maintaining the existing program. As with most change of this nature, one is not afforded the luxury of "closing down shop while you re-tool" . This has placed a tremendous burden on the faculty, at one time requiring commitment and creativity to a program in which students are enrolled, while demanding time and energy to develop and implement a totally new concept of program for a new cohort of students. In the midst of this change process, the faculty have also had to address the need for their own continuing professional development in relation to program changes (e.g. the expertise needed to integrate technology not only into the program but their own teaching).

The opportunity for such sweeping systems level changes and the administrative support to seriously engage in this effort was key in motivating faculty to reconceptualize the programs.

The administrative support from the vice president for academic affairs and the dean is a necessity. Another necessity was that the while the opportunity for reform was created externally, the true impetus for reform and its definition came from the faculty of the programs involved.

If this process were engaged again, it would be beneficial to work collaboratively as faculty in more fully detailing the nature of change and outlining the areas of likely impact. This should include any subsequent temporary effects on students and faculty as a means of anticipating the overload demand on all involved.

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State University of New York at Fredonia

Fredonia, New York

Clinical Field Supervisor Training Program

The Clinical Field Supervisor Training Program changes the role, responsibility and reward system for teachers who have been trained as Clinical Field Supervisors. The Clinical Field Supervisor (CFS) Training Program was initiated to meet three basic needs that have been delineated in the literature on pre-service teacher preparation. First, pre-service educators must receive specific, as opposed to global, feedback regarding their instructional performance. Second, they must be provided with consistent feedback from cooperating teachers as well as college supervisors. Finally, pre-service teachers must receive such instructional feedback in a manner consistent with their adult learning styles.

The overall goal of the Clinical Field Supervisor (CFS) Program is to improve both the quality and quantity of supervision that student teachers receive. To achieve this goal, the CFS Program provides area classroom teachers and university personnel with training in identifying and setting specific expectations, formal and informal observation systems, collecting and recording data, conferencing, problem-solving, adult learning, formative and summative evaluation, and working as a member of an instructional team.

Clinical field supervisors, appointed as associate faculty for periods of two years, work collaboratively with faculty at Fredonia in the evaluation and development of the teacher education program. Each semester, CFSs are asked to give feedback on the developing program. That feedback has been used in changing and improving the program.

Intended Outcomes

Cooperating teachers trained in the Clinical Field Supervisor Program are expected to use a common supervisory framework and body of knowledge regarding expectations, conferencing and goal setting provided by the CFS training while supervising student teachers from the College at Fredonia. Over 400 teachers have been trained since 1989 and it is expected that by 1996 all student teachers will be placed in CFS classrooms.

Lessons Learned

In May 1994, five years after the beginning of CFS training, a survey of all Clinical Field Supervisors was conducted. Two main objectives of this survey were to assess the degree to which CFS participants felt they garnered professional benefits from the experience and to learn whether the CFS training led to lasting changes in the way supervising teachers provided guidance and feedback to our students. A total of 220 surveys were returned to the Office of Field Experiences, out of a total initial mailing of 320, for a response rate of just under 70 percent.

Approximately half of the items sought to assess the degree to which teachers felt the CFS training was a help to them in supervising student teachers. Almost all teachers felt that the CFS training had made them feel more effective, while about half strongly agreed that CFS had changed the way they supervised. Almost all CFSs agreed that the training had positive impacts on their conferencing, helping student teachers set expectations, preparing written reports, and helping students to self-evaluate their performance.

The overall tone of CFS comments was positive, many praised the efforts to keep in touch through this survey. The single most often voiced concern was that teachers who had CFS training should be the only ones supervising Fredonia students.

If it had been possible to offer more sessions or a more convenient scheduling of the training in an effort to train teachers more quickly, it would have served student teachers and the program much better.

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Research for School Improvement

Ball State University

Muncie, Indiana

The Smithsonian Connection: Objects-Based Inquiry

The partnership between Teachers College, Ball State University and the National Museum of Natural History of the Smithsonian Institution will be the foundation of a Natural Science Public Information Resource Exchange (NSPIRE) designed to: (1) provide access to museum resources and pedagogy to educational communities at a distance; (2) bridge museum science and scientists to students and educators; (3) provide a foundation of research regarding hands-on learning in a variety of contexts; and (4) foster communities of learners. To accomplish this, the following critical objectives must be met: (1) develop a public awareness of museum science; (2) design, implement, evaluate and disseminate a teacher enhancement program regarding museum science and inquiry-based learning; (3) create a satellite museum where teachers, students, researchers, museum and teacher educators, and other community members will engage in ongoing inquiry about teaching, learning and museum pedagogy and science and technology; (4) design, implement, evaluate and disseminate an inquiry-based curriculum; (5) develop a teacher research project focusing on inquiries about museum pedagogy and science and its implications for systemic school reform; and (6) examine and evaluate changes in students, teachers and museum educator's beliefs and practices.

University faculty in science and mathematics and in instructional methods have joined with faculty in the Burris Laboratory Schools to conduct research in this instructional innovation. In the end, this "grass roots" collaborative research effort by faculty is intended to create an interactive, electronic curriculum for national dissemination, to explore the notion of "school as museum," and to educate parents on the use of natural objects to enhance home-based learning.

Intended Outcomes

The purpose of this reform effort is to develop a model on inquiry-based instruction, using advanced, interactive technologies and objects from the Natural History Museum of the Smithsonian in a laboratory school setting.

Lessons Learned

This project is an outgrowth of inquiry-based discussions by teacher educators, teachers and museum scientists and educators on the nature of teaching and learning in both classrooms and museums. These discussions have led us to the articulation of assumptions about the nature of knowledge, learning processes, and teaching practices. These assumptions will guide the project's activities and research. Although still in the early stages of development, we believe that interdisciplinary and inquiry-based processes will provide a strong foundation for the goals established for this project.

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The University of North Carolina at Charlotte

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Implementing Principles of Continuous Quality Improvement in the Classroom

Using the principles of Continuous Quality Improvement, University faculty, K-12 faculty, school administrators, students and parents are collaborating in the transformation of traditional classrooms into learning organizations where students are encouraged and assisted in assuming a developmentally appropriate level of responsibility for their own learning. With teacher guidance, each class or cohort of students develops a "learning and development mission" which becomes the basis for planning and implementing learning activities. The traditional notion of a teacher-developed "lesson plan" is replaced with a "learning plan" in which students fully participate in establishing the relevance of "required curricula" and extending the learning goals to include knowledge and skills of personal interest. Likewise, strategies for learning are cooperatively developed with students taking a greater and a developmentally appropriate role in the identification of their individual learning needs. Students also participate in the development of qualitative criteria for assessing their progress toward their learning goals. These criteria provide the basis for students to self-evaluate their own work and for teacher-student conferences based on the similarity and differences in students' and teacher evaluations. Consequently, students continuously monitor their work as they strive to achieve their learning goals and their personal mission.

Intended Outcomes

This reform effort is intended to significantly enhance the level and quality of students' sense of responsibility for and investment in their own learning and behavior in and out of the classroom. The reform is being implemented in elementary, middle and secondary schools with an impact on the design of instruction in college classrooms.

Lessons Learned

Thus far, this initiative has produced a wealth of specific student and teacher data on learning strategies and learning progress which is being used to guide the improvement of learning and teaching strategies in the pilot classrooms. The most significant aggregate data in the pilot classrooms reveals that student absenteeism is down; student referrals for discipline have been reduced by almost 50 percent; students' on task behavior is up by 30 percent plus, using the Stallings SOS and FMI system of measurement; students, who have been historically passive are now quite active in learning activities; students are expressing greater pride in their work and there is growing evidence that they are beginning to adopt higher and more rigorous personal standards; and teachers regularly report that they are being surprised at the abilities of their students. There is a growing recognition that past practices have constrained students' learning and caused both teachers and students to underestimate their learning potential.

The project has not been without problems. For example, start-up time for establishing a culture of quality and personal responsibility creates pressure on teachers who are faced with "covering" all of the material and end-of-course achievement tests. The classes which have had the most success needed as many as five weeks at the beginning of the school year to get into a quality mode. The older the children, the harder it is to shift away from traditional

expectations and practices. There should be more advance training for teachers and more technological support to reduce the paper blizzard of data being generated by students and teachers.

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Christa McAuliffe Showcase for Excellence:

Developing Models to Enhance the Teaching Profession

California State University, Northridge

Northridge, California

Comprehensive Teacher Education Institute

There is a drastic shortage of university minority and other talented students specifically prepared to teach diverse learners in today's complex schools. In order to increase the number of such students, a three-way collaboration of faculty and administrators in the education and academic units of the university with the public school educators (teachers at the local and district levels) was formed to develop an alternative teacher education program. This alternative program is called the Comprehensive Teacher Education Institute (CTEI). University students who are interested in teaching were selected during their junior year and were mentored throughout the balance of their undergraduate degree program, through their teacher preparation program, and into their first year of teaching. The strong mentoring program consisted of grouping students into co-sponsorship teams which included at least one university and one district faculty member; these teams existed throughout the program. Additionally, a Cadre of Retired Educators (CORE) worked closely with CTEI teachers during the intern phase and beginning year(s) of teaching. CTEI students had a three-year paid field experience which included two years as a teaching assistant and one year as a half-time student and half-time paid intern. All CTEI interns received teaching contracts.

Intended Outcomes

Through the CTEI partnership, the teacher candidates will be well prepared to teach students in today's multi-ethnic, multi-cultural, multi-lingual classrooms. The strong mentoring program provides the kind of support necessary for success in today's complex schools, including a greater retention rate.

Lessons Learned

A strong tripartite collaboration of university education and academic faculty and public school faculty brought about greater understanding among the participants from the two organizations, resulting in less criticism and more constructive dialogue. This resulted in a substantial mentoring program which resulted in students completing their program and being better prepared to blend content, pedagogy and curriculum into meaningful teaching practices in the "real world" of multi-ethnic and multi-lingual classrooms and schools.

University faculty involved in the program changed the methodologies, strategies and techniques in their own courses. However, there was not as much change at university department and school levels as had been hoped. This problem might have been minimized through a more persistent effort to involve all elements of the university.

Combining half-time student teaching with a master teacher and a half-time paid internship creates a heavy load for a student. However, it is felt that the arrangement is preferable to having people begin teaching full time with little, if any, educational course work and guidance. Using retired teachers as support persons for interns and first-year teachers is definitely a positive contribution to the success of the program.

A final lesson learned is that it is difficult to institutionalize aspects of even a successful alternative teacher education program during periods of substantial budget cuts.

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California State University, Stanislaus

Stanislaus, California

Transitional Learning Center for Homeless Children

The Transitional Learning Center for Homeless Children (TLC) is a collaborative effort between Saint Mary's Interfaith Dining Room, California State University Stanislaus, and the San Joaquin County Office of Education. These three entities work with five area homeless shelters and transient motels. The collaborative aspect of TLC permits a wide range of exceptional services and a rich teacher-to-student ratio of 1:5. CSU Stanislaus graduate students develop curricula and teach at the school. Student teachers are placed at TLC for fieldwork assignments. Psychology and sociology students may do field work and provide counseling at TLC under departmental staff supervision. Saint Mary's Interfaith Dining Room, a non-profit, multi-faceted day facility for homeless people, provides TLC with two classrooms plus food, clothing, medical, dental, and vision care. The San Joaquin County Office of Education supports TLC through its Alternative Education Program. It credentials the school, provides two full-time teachers, provides secretarial and administrative support, and has contributed a new portable classroom.

Each student is evaluated in literacy skills, and students who appear to have a learning disability or developmental delay are tested. In the past three years, the school has served over 850 homeless children and over 250 CSU Stanislaus students have participated. The project director conducts ongoing research on the psycho-social, emotional and educational effects of homelessness on children. Field research is also conducted on the school's ability to raise the community's consciousness level regarding homeless children and families in society.

Intended Outcomes

The goal of TLC is to provide for the physical, emotional and educational needs of homeless children of San Joaquin County whose families are in transition between permanent residence. Another goal is to raise community awareness of the plight of homeless children.

Lessons Learned

In the first two years of operation, TLC staff have learned that it is necessary to provide follow-up services for students when they leave TLC and enroll in a traditional school. Attendance in public schools is very sporadic after TLC. CSU Stanislaus students are now used to accompany the child and her/his family to the new school they will be attending as soon as they have in permanent housing. Student interns track students' progress and attendance for one month, noting their social and emotional status. Behaviors that are monitored include class participation, alertness/attention, personal appearance, anxiety, and interaction with peers. These student assistants are current credential program students who receive a full tuition stipend in exchange for their services. The TLC Scholarship Fund, which awards at least two scholarships annually, is supported by a local patron of the school.

Another component lacking in the program was a consistent and intensive family therapy program. One of the goals for next year is the creation of a play therapy and counseling center to help students deal with the stress in their lives, improve communication, and reduce violence in families. The center will provide individual, group and family counseling. It will also provide play therapy sessions for all students and classes for parents.

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East Carolina University

Greenville, North Carolina

Model Clinical Teaching Program

East Carolina University and the Pitt County Schools have collaboratively conceptualized, designed, implemented, evaluated and modified the Model Clinical Teaching Program for the professional growth of pre-service and in-service teachers. The program was guided by two contextual assumptions: an extended clinical experience with reflective action provides the bridge for pre-service and in-service teachers to integrate theory and practice; and a university/public school partnership is the ideal context in which to integrate these two entities. The program is based on the belief that pre-service teachers experience more professional growth when prepared in a year-long clinical setting with mentors to guide their work and on the belief that a clinical context that is more conducive to experimentation and research provides an environment rich in professional growth for in-service teachers.

Public school and university personnel assume equal ownership in the development of this program characterized by an integrated undergraduate elementary curriculum, a two-semester clinical experience emphasizing mentoring and reflective action, intern cohorts, a team approach to problem solving, and intensive staff development for Clinical Teachers serving in the role of mentors. The program prepares pre-service teachers for the "real world" of teaching, enriches the professional lives of veteran teachers, and improves classroom learning both in university and public school settings.

Intended Outcomes

One goal of the program is to produce a cadre of pre-service teachers who are more knowledgeable about the teaching/learning process, able to apply this knowledge in a variety of ways in the classroom setting, and ready to assume their professional responsibilities as classroom facilitator and manager.

Lessons Learned

In designing the program, developers conceptualized an outcomes-based model of what graduates and clinical teachers needed to know and be able to do and what professional behaviors they needed to exhibit. University faculty and school personnel then created a curriculum and delivery system that would allow interns and clinical teachers to master the required skills and competencies. The evaluation and research results are impressive. They revealed significant differences in conceptual growth, levels of concern, teacher efficacy, and job satis-

faction between MCTP interns and clinical teachers and their peers outside the program. A five-year study shows that 97.9 percent of MCTP graduates have remained in the classroom.

Although these results are impressive, the collaborative process was, at times, painful, requiring a willingness of all participants to be open, honest, supportive and steadfast in their commitment to a common vision. However, it is clearly worth the effort. If designing the program again, the developers would have a contractual agreement regarding the reward structures for university faculty and clinical teachers.

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East Texas State University
Commerce, Texas

East Texas State University at Texarkana
Texarkana, Texas

Northeast Texas Center for Professional Development and Technology

The Northeast Texas Center for Professional Development and Technology (NET CPDT) is a collaborative of East Texas State Universities, public schools, businesses and Education Service Centers dedicated to redesigning pre-service and in-service teacher education in a field-based setting. Innovative teaching and assessment practices are integrated with technology to improve the learning and achievement of students in a pluralistic society. The integration of theory with practical classroom applications occurs under the guidance of Instruction Leadership Teams (ILT) who practice site-based decision-making, who are life-long learners, and who value professional growth opportunities that encourage reflective thinking. The program involves pre-service teachers in two semesters of "hands on" experiences in public schools while integrating the required university course work content. The ITL consists of volunteer mentor teachers, interns and/or residents, and a university faculty member. While the ILT's primary focus remains on K-12 learners, the mentor teachers share their expertise with interns and residents as they work together. Interns and residents have extended opportunities to practice what mentor teachers model and to develop their own teaching styles. ILT members provide continuous feedback while encouraging interns and residents to develop self-evaluation and reflective inquiry skills.

Intended Outcomes
The NET CPDT is collaboratively redesigning pre-service teacher education as a comprehensive field-based program. The collaboration is improving the quality and relevance of staff development and maximizing K-12 student learning by addressing the needs of a culturally diverse population.

Lessons Learned
True collaboration involves continually bringing all the partners together for problem solving and vision building. Additionally, have all partners represented fosters program ownership

at all levels. Ownership is the key element that motivates the participants to remain committed to the program.

Both collaboration and ownership depend on communication. More effective avenues of communication across this partnership has been a continual challenge. Electronic mail is available only at some sites. A newsletter will be produced to share successes and to update scheduled events. However, facilitating communication will continue to be a priority, especially as the program grows larger.

Integrating the content of the university course work with assignments suited to the student's time in public schools is being continually refined. Seeking effective ways to bridge theory and practice with interns and residents as they practice what they learn has been an important task for mentors and university liaisons. Self reflection is encouraged and has proved to be a major factor that facilitates professional growth.

The interaction of university and public school personnel on a regular basis has been valuable, however, it changes the roles previously played by both groups. Therefore, administrators must take a closer look at what is valued and find appropriate ways to support and reward these new approaches.

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Fort Lewis College

Fort Lewis, Colorado

FLC/Navajo Nation Teacher Preparation Program

The current rate of population growth in the Navajo Tribe will double the population in the next two decades. Some studies reveal that approximately 80 percent of the Navajo people are under the age of 25. A large percentage of Navajo students are not graduating from high school; the dropout rate in many schools is at least 60 percent. A study by the Navajo Department of Education identified the following problems: reservation schools do not retain teachers for more than a year or two; the majority of teachers (92 percent) on the reservation are non-Navajo; schools on the reservation do not provide enough positive role models; and few bilingual Navajo speakers are licensed by the states of New Mexico and Arizona.

The program is based on several assumptions: the shortage of Navajo teachers exists in part due to the economics of higher education which deter students from attending college as a regular student; many of the prospective students were essential members of an extended family with numerous forces present to keep them from leaving their communities; conventional teacher education entrance exams presented a formidable barrier; teacher aides represented a large untapped resource of prospective teachers because of their years of experience with children; and the bilingual skills and cultural knowledge of these aides would make them extremely valuable teachers and role models for Navajo children.

Professors travel to the reservation and teach on a weekly basis. They use cooperative teaching approaches and encourage students to create Navajo-specific curricular materials such as Navajo versions of books, experienced-based literature, Navajo social studies units, and computer software programs in the Navajo language. Students enroll in five courses in Navajo Language and Culture for the Ford Foundation Program and four courses in Navajo Culture for Title V students, offered by the Navajo Community College in Shiprock, N.M. Each student was counseled through a student-constructed major to fit the program to the student rather than fit the student to the program.

Intended Outcomes

The program hopes to change the direction of education on the Navajo Reservation by putting more Navajo teachers in the classroom. Navajo teachers will be in a better position as teachers than non-Navajos because they understand the cultural influences that affect learning styles, personal needs, and academic strengths and weaknesses of Navajo students.

Lessons Learned

The Department of Education has learned that on-site classes and student-constructed majors will produce a higher retention rate for Navajo students and possibly for other minority students. Numerous students completing the program are now teaching on the reservation as schools compete for bilingual and bicultural teachers. The Navajo students are more serious and dedicated to the program than traditional on-campus students. The off-campus program has been improved by the working relationship with the Navajo Community College to provide Navajo language and culture classes. The cultural awareness and sensitivity of participating faculty members has been heightened.

A second phase of the program has incorporated more computer classes designed to assist in producing Navajo-specific teaching materials. The program has hired five Navajo graduates of the first phase as on-site coordinators. Scholarships and stipends enable students to attend classes rather than work on weekends.

The program would hire Native-American professors, however, there are none currently available. The department is attempting to start an intern program to provide opportunities for Native American students to complete a doctoral program and become members of the staff.

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Southeast Missouri State University

Cape Girardeau, Missouri

The KASM Program

The KASM Program (K-6 science and mathematics) is an integrated program centered on teacher in-service training and process materials development. The in-service component consists of four short courses-biological, earth, physical science and mathematics. Each concentrates on the techniques and strategies of process-based instruction in the elementary classroom. The courses are taught by trained, lead mentor teachers with extensive experi-

ence in the area of concentration. Participants in the course experience the activities along with content background and suggestions for extensions of the activity. The second component of the program is the KASM Activity Guide Series: four volumes (one in each subject) containing hundreds of process-based, hands-on student activities which specifically address the key skills in the elementary curriculum in the above subjects for each grade level K-6. The activities are specifically designed to (1) be short in duration, (2) utilize easy-to-obtain, inexpensive equipment or supplies, and (3) promote high effective responses from the students.

Intended Outcomes

The goal of KASM is to increase exposure of elementary students to effective, hands-on, process-based instructional experiences and strategies that will foster positive attitudes toward science and mathematics and, consequently, promote increased learning in those areas. Additionally, KASM is intended to provide elementary teachers with assistance and materials for the enhancement of science and mathematics teaching and learning.

Lessons Learned

The KASM Program has had a significant impact on elementary teachers participating in the in-service courses. Statistical evaluation has shown that the program has a highly significant effect on the attitudes and teaching methodologies of teacher participants. The participants also feel a higher level of confidence and willingness to teach math and science.

There has also been a positive affective and cognitive impact on the students of those teachers. Students seem to respond to the participatory, hands-on science and math methodology.

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Stephen F. Austin State University

Nacogdoches, Texas

Center for Professional Development and Technology

The Center for Professional Development and Technology is a four-year program based on the Teacher Proficiencies identified by the State Board of Education. It includes general education, an academic major, and 24 hours of field-based professional education. Pedagogy courses are taught at public school sites. Each course carries an internship component. A portion of each intern's day is spent tutoring students, shadowing teachers, preparing materials, teaching small groups, working in service areas, and participating in staff development. All this is under the guidance of mentors. Following the internship semester, students have a full semester of student teaching. University students and teachers share the latest staff development opportunities as they work together to address student needs. Two important features of the program are the integration of State Board of Education Proficiencies throughout the program and the integration of technology into the delivery of instruction.

Intended outcomes

The mission of the restructured program is to improve the quality of teacher preparation and thus increase student achievement for the diverse populations of the state. The focus of the program design is the teacher.

Lessons learned

The program has proven that collaboration works and that earlier field experience makes a better teacher. Specific skills and abilities are necessary for totally restructuring teacher education. The following roles are necessary to create and maintain a program: visionaries, managers, leaders to carry the vision, teachers, administrators, technicians and researchers. An infusion of technology prompts university and school personnel to develop skills in using computers, telecommunications, CDROM, laser discs and technology networks. Therefore, staff development must be a part of the center.

The challenge of obtaining funds to meet increasing costs for field-based teacher education, the time required for collaboration, the lack of initiative of some colleagues for restructuring teacher education, and certain Coordinating board rules that, in the past, had limited flexibility were, and are, issues that demand attention.

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